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ABSTRACT

The Michigan Assessment Program was initiated by the State Board of Education in an effort to provide educators with information which would facilitate the decision-making process in relation to educational change and improvement. The program was designed to gather data on the levels and geographic distribution of performance factors and to provide local school district officials with information regarding schools within their districts. Implementation of this assessment procedure would enable local school district officials to construct educational profiles, providing a basis for comparison with other state districts while emphasizing levels of educational performance and performance factors. An explanatory booklet describes precautions which must be taken in utilizing and interpreting the Assessment data, explains the format of the data presented in the local districts computer printout, defines the Assessment measures, and describes the norm tables and education profiles. A hypothetical district is employed in the presentation, but the techniques can be adapted to assess an actual district. Eighteen factors, which may be grouped broadly under Socioeconomic Background (1 factor), Attitudes and Aspirations (3), Human Resources (4), Financial Resources (6), and Basic Skills (4), were measured. (Author/PR)

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Local District Report

SCHOOL DISTRICT:

Dyer

Enclosed are materials with which you can construct education profiles for your district. These profiles will permit you to compare your district and schools with other districts and schools in Michigan on those variables reported in the Michigan Assessment Program.

MICHIGAN ASSESSMENT PROGRAM 1969-70

ASSESSMENT REPORT NO. 6

TM 000 324

THERE ARE THREE SETS OF MATERIALS:

1. EXPLANATORY BOOKLET

In the *left-hand side of the enclosed folder* is a booklet that explains: (a) the precautions to be heeded in the use of Assessment data; (b) how to interpret the local district computer printout; and (c) how to construct education profiles. It is important to read this booklet carefully before attempting to utilize the other materials.

2. NORM TABLES

In the *right-hand side of the enclosed folder* are norm tables. There are separate tables for *district* and *school* data. There are tables for *Michigan* as a whole, for your *region,* for your *community type,* and—in some cases—for your *combination* community type and region.

3. LOCAL COMPUTER PRINTOUTS

In the *mailing envelope with this folder* is a local computer printout. This printout contains data on your district and its schools. The explanatory booklet will show you how to portray this data graphically and effectively in education profiles.

IMPORTANT:

The enclosed materials are, of necessity, complicated. It is of utmost importance, therefore, that you read—and thoroughly understand—the explanatory booklet *before* attempting to employ the data from your computer printout.

If there are questions still unanswered after study of these materials they may be directed to the Bureau of Research, Evaluation and Assessment, Michigan Department of Education, Lansing, 48902 (Tel.: 517-373-1830).

MICHIGAN DEPARTMENT OF EDUCATION

ED0 45733

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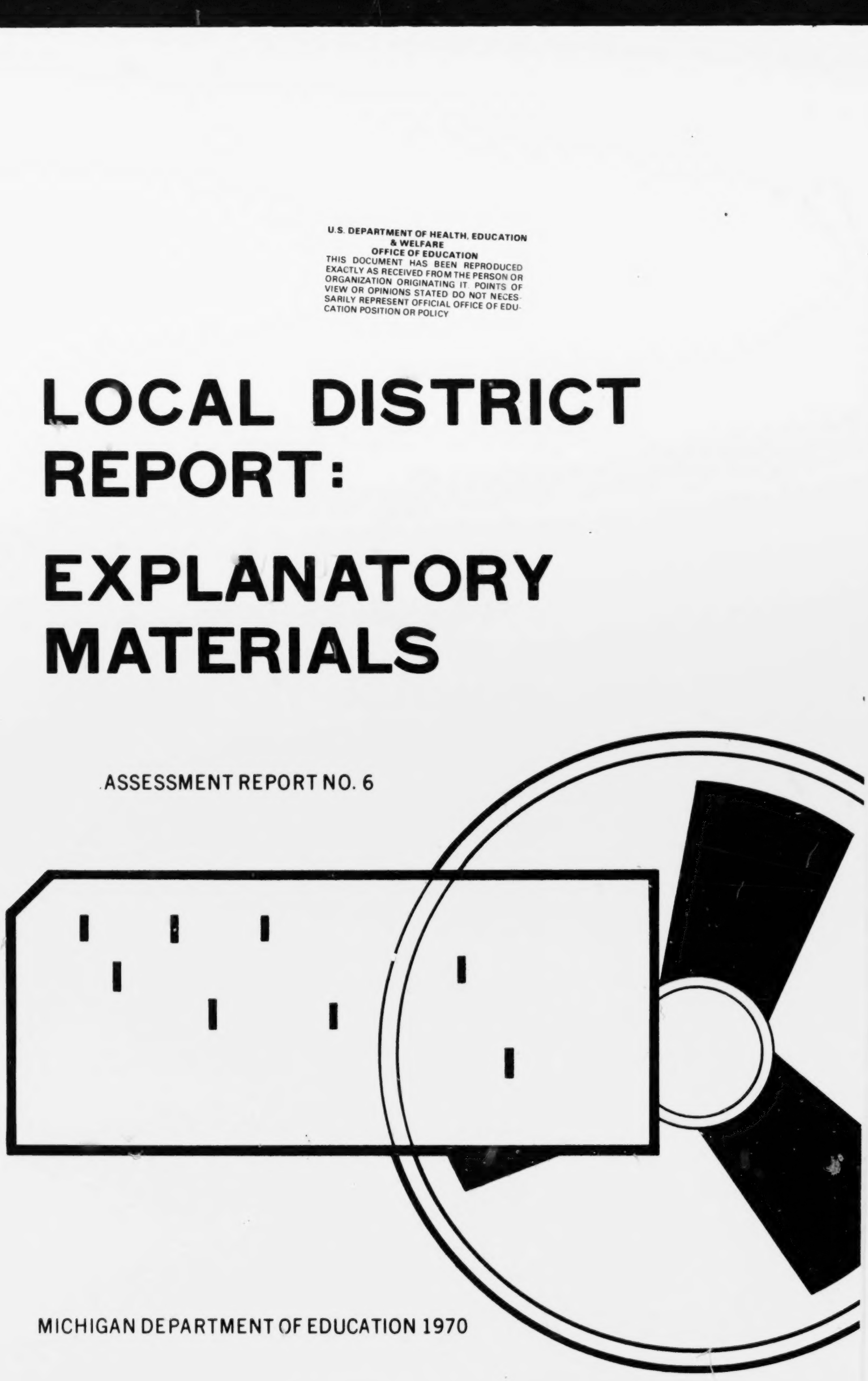
LOCAL DISTRICT REPORT:

EXPLANATORY MATERIALS

ASSESSMENT REPORT NO. 6



MICHIGAN DEPARTMENT OF EDUCATION 1970

State Board of Education

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FOREWORD

The Michigan Assessment Program was initiated by the State Board of Education, supported by the Governor, and funded by the Legislature through enactment of Public Law 307 in August, 1969. The goal of the Program is to provide educators and citizens with information regarding the status and progress of Michigan's educational system so that they may make more informed decisions about education in the State.

Three major purposes guided the design and operation of the 1969-70 Michigan Assessment Program. The three purposes were:

1. to gather data which would show the levels of educational performance and the levels of certain factors related to performance within Michigan's geographic regions and community types;

2. to gather data which would indicate the ways in which educational performance and certain factors related to performance are distributed in Michigan; and

3. to provide local school district officials and citizens with information regarding their own school district and its schools.

Data gathered regarding the third purpose is presented in these materials: Local District Report, Lansing, Michigan: Michigan Department of Education, Assessment Report No. 6, 1970.

Thanks are due to a large number of individuals and groups for making the Michigan Assessment Program a reality: the State Board of Education for proposing it, the Governor and Legislature for actively supporting it, and Michigan educators for assisting with it. The Program was designed and administered by the Bureau of Research, Evaluation, and Assessment, Michigan Department of Education, with the counsel of several ad hoc advisory groups.

John W. Porter
Acting Superintendent of
Public Instruction

INTRODUCTION

By following the procedures described in this booklet, local school officials will be able to construct education profiles which will enable them to relate their district and schools with other districts and schools in Michigan, in their geographic region, in their community type,[1] and in their combination region-community type. The relating may be made on the levels of educational performance and the levels of certain factors related to performance. The education profiles will enable local school officials and citizens to better understand their district and its schools.

This explanatory booklet has three sections. The first section describes precautions which must be taken in utilizing and interpreting the Assessment data. The second section explains the format of the data presented in the local district's computer printout. This is done by referring the reader to a fictitious computer printout for the hypothetical "Michville" school district. This fictitious printout is presented as FIGURE 1. The third section defines the Assessment measures. The fourth section describes the norm tables that are provided with this booklet. It also explains how the data presented in the local district's computer printout may be plotted onto the norm tables to create district-level and school-level education

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[1]The geographic regions and community types employed in the Michigan Assessment Program are described in Appendix A of this booklet.

profiles for the hypothetical Michville district and its schools. An actual State-wide, fourth grade, district-level norm table is shown with Michville's district scores plotted on it (FIGURE 2). An actual State-wide, fourth grade, school-level norm table is shown with Michville's schools' scores plotted on it also (FIGURE 3). Careful reading of these four sections will prepare local school officials to construct and interpret education profiles for their own districts and schools.

I. PRECAUTIONS IN THE UTILIZATION OF ASSESSMENT DATA

Proper utilization of the data presented in the local district printout will help to pinpoint educational needs and therefore can lead to improved decision-making at the local level regarding the allocation of resources and the design of curricula. This first section of the booklet outlines several precautions which must be exercised in the construction and interpretation of the education profiles.

A. Relationships among Assessment Variables

The Michigan Assessment Program is built on the assumption that there is a relationship between student performance and certain other factors. Recent research indicates that certain characteristics of students' background--including their socioeconomic status and their attitudes and aspirations--bear a strong relationship to performance. Research also indicates a moderate relationship between qualities of the instructional staff and performance. Finally, the amount of financial resources spent by a district bears an indirect relationship to performance because schools with more financial resources are able, among other things, to acquire and retain higher paid certificated staff and provide a greater variety of instructional programs.[2]

It must be understood, however, that previous research has been conducted on large samples of schools and school districts.

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[2]For a report and discussion of research which deals with the influence of non-school factors, e.g., socioeconomic status and attitudes and aspirations, refer to Research into the Correlates of School Performance: A Review and Summary of Literature. (Lansing, Michigan: Michigan Department of Education, Assessment Report No. 3, 1970).

Additionally, it must be understood that previous research has not established causal relationships. Therefore it must not be assumed that there will be a relationship between achievement and the other variables in all individual district reports.

B. Assessment Data Represents a Sample

Much of the data gathered for the Michigan Assessment Program must be considered a sample. Thus, for example, a school's score on composite achievement is assumed to reflect the knowledge of fourth graders on a sample of Basic Skills items as measured at a particular time. If a different sample of items had been administered to the same group of children under similar conditions, at a different time, it is probable that they would have obtained similar scores. A further consideration is the number of pupils who took the battery within each school and district. In schools where a large number of children responded to the Assessment Battery, the score for the school is expected to be fairly stable. However, where there are fewer than five children in the school responding to the Assessment Battery, the score for that school may not be reliable. Therefore, caution must be exercised when interpreting scores based on fewer than five children.

C. Validity and Reliability of Socioeconomic Data

The Michigan Assessment Program measured the socioeconomic status of groups of youngsters because it has been shown to be related to achievement in past research. However, it should be recognized that socioeconomic status is extremely difficult to index and measure accurately. It is likely that in some schools--expecially those in which very few youngsters responded to the SES items of the Assessment

Battery--the socioeconomic score may not accurately reflect the socioeconomic background of a given school as measured by the students' responses.

D. District and School-Level Data

In constructing the education profiles, the local school official should be careful to use his school means only with the school tables and his district means only with district tables.

II. THE COMPUTER PRINTOUT

The 1969-70 Assessment Program measured eighteen factors grouped into six categories. These categories were: (1) socioeconomic background, (2) attitudes and aspirations, (3) 1968-69 district human resources, (4) 1968-69 district financial resources, (5) vocabulary, and (6) basic skills achievement. This ordering was used in constructing the district and school-level norm tables. The computer printout attached to these materials contains the local scores on these factors. The measures of human and financial resources were gathered from district records. The other factors were measured by the Assessment Battery at the fourth and seventh grade levels. This section of the explanatory booklet describes this computer printout.

The Computer Printout

As mentioned, the local district printout is included with the norm tables as part of these materials. A sample printout for the hypothetical "Michville" school district is included in this booklet as FIGURE 1.

In the Michville computer printout, at the top of the first page under the district number and name and under the heading "1968-69 DISTRICT HUMAN RESOURCES," measures are given which describe certain characteristics of the instructional staff of the district in terms of pupil load, education, experience, and compensation. At the right of the DISTRICT HUMAN RESOURCES, under the heading "1968-69 DISTRICT FINANCIAL RESOURCES," are per pupil measures of district wealth, revenue, and expenditure.

MICHIGAN ASSESSMENT OF BASIC SKILLS
LOCAL DISTRICT REPORT

86-010 MICHVILLE SCHOOL DISTRICT
REGION 2 COMMUNITY TYPE III

1968-69 DISTRICT HUMAN RESOURCES:

PUPIL/TEACHER RATIO	19.7
AVERAGE YEARS TEACHING EXPERIENCE	4
PERCENT OF TEACHERS WITH MASTERS DEGREES	23
AVERAGE TEACHER SALARY	7082

1968-69 DISTRICT FINANCIAL RESOURCES:

STATE EQUALIZED VALUATION PER PUPIL	15590
LOCAL REVENUE PER PUPIL	346
STATE SCHOOL AID PER PUPIL	273
K-12 INSTRUCTIONAL EXPENSE PER PUPIL	373
TOTAL CURRENT OPERATING EXPENDITURE PER PUPIL	575

ASSESSMENT BATTERY RESULTS JANUARY 1970

	SES	ATTITUDES & ASPIRATIONS A	B	C	BASIC SKILLS ACHIEVEMENT VOCAB.	READING	ENG.EXPR.	MATH	COMPOSITE ACHIEVEMENT
4TH GRADE BUILDING SCORES									
3487 ABLE ELEM. SCHOOL									
SCHOOL MEAN	52.4	49.3	51.4	54.3	51.5	50.3	49.9	51.3	50.8
STANDARD DEVIATION	10.6	8.7	9.8	7.1	8.2	9.9	10.1	8.7	9.4
NUMBER OF PUPILS	38	38	38	38	42	42	41	41	41
5379 BUSH ELEM. SCHOOL									
SCHOOL MEAN	48.5	45.6	46.5	48.4	47.3	46.8	48.9	50.2	47.3
STANDARD DEVIATION	8.4	9.3	9.4	8.8	9.8	6.3	8.7	8.1	9.2
NUMBER OF PUPILS	48	48	48	48	47	47	46	46	46
4TH GRADE DISTRICT SUMMARY									
DISTRICT MEAN	50.2	47.2	48.7	51.0	49.3	48.5	49.4	50.7	48.9
STANDARD DEVIATION	9.9	9.1	9.7	8.5	9.4	8.5	9.4	8.5	9.3
NUMBER OF PUPILS	86	86	86	86	89	89	87	87	87

DISTRICT MEAN BASED UPON ALL 4TH GRADE STUDENTS TESTED IN DISTRICT

FIGURE 1

MICHIGAN ASSESSMENT OF BASIC SKILLS
LOCAL DISTRICT REPORT

86-010 MICHVILLE SCHOOL DISTRICT
REGION 2 COMMUNITY TYPE III

1968-69 DISTRICT HUMAN RESOURCES:

PUPIL/TEACHER RATIO	19.7
AVERAGE YEARS TEACHING EXPERIENCE	4
PER CENT OF TEACHERS WITH MASTERS DEGREES	23
AVERAGE TEACHER SALARY	7802

1968-69 DISTRICT FINANCIAL RESOURCES:

STATE EQUALIZED VALUATION PER PUPIL	15590
LOCAL REVENUE PER PUPIL	346
STATE SCHOOL AID PER PUPIL	273
K-12 INSTRUCTIONAL EXPENSE PER PUPIL	373
TOTAL CURRENT OPERATING EXPENDITURE PER PUPIL	575

ASSESSMENT BATTERY RESULTS JANUARY 1970

	SES	ATTITUDES & ASPIRATIONS A	B	C	BASIC SKILLS ACHIEVEMENT VOCAB.	READING	ENG. EXPR.	MATH	COMPOSITE ACHIEVEMENT
7TH GRADE BUILDING SCORES									
4628 JONES MIDDLE SCHOOL									
SCHOOL MEAN	50.1	47.1	48.3	51.8	50.1	48.6	47.4	48.6	47.7
STANDARD DEVIATION	9.1	9.6	10.4	8.5	9.7	8.5	8.3	7.5	8.8
NUMBER OF PUPILS	81	81	81	81	85	85	85	85	85
7TH GRADE DISTRICT SUMMARY									
DISTRICT MEAN	50.1	47.1	48.3	51.8	50.1	48.6	47.4	48.6	47.7
STANDARD DEVIATION	9.1	9.6	10.4	8.5	9.7	8.5	8.3	7.5	8.8
NUMBER OF PUPILS	81	81	81	81	85	85	85	85	85

FIGURE I (CONTINUED)

Below these measures of district human and financial resources will be found the results of the January, 1970 Assessment Battery. The results are shown by building for schools testing 4th graders, and then for all 4th graders in the district (4th GRADE DISTRICT SUMMARY); a similar report has been prepared for the 7th grade, where results are shown by building for schools testing 7th graders and, finally, for all 7th graders in the district (7th GRADE DISTRICT SUMMARY).

The mean pupil score within a school on each measure is shown in the row labelled "SCHOOL MEAN," and the spread or dispersion of pupil scores is shown in the row labelled "STANDARD DEVIATION"--about two-thirds of the pupils' scores would be found within one standard deviation above and below the school mean.[3] Finally, the number of pupils who responded to each measure is shown in the row labelled "NUMBER OF PUPILS." The district summaries, which appear after the last set of building scores at each grade level, follow the same pattern as the school scores, except that the mean, standard deviation, and number of pupils are district-wide figures referring to all pupils tested at the grade level indicated.

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[3]Brief definitions of statistical terms used in these materials are provided in Appendix B.

III. DEFINITION OF THE ASSESSMENT MEASURES

For the reader's convenience, the 18 factors measured in the Michigan Assessment Program are listed below with brief comments where appropriate.

SOCIOECONOMIC BACKGROUND:

1. Socioeconomic Status. The Assessment Battery which was given to students included several questions which were designed to gather information regarding students' socioeconomic background. These responses were not analyzed on an individual student basis; rather, scores were compiled for each school and district which participated in the Assessment Program. The SES measure is assumed to be indicative of students' perceptions of such things as the educational level of parents and their general economic level.

ATTITUDES AND ASPIRATIONS:

2. Attitude A: Importance of School Achievement. The Assessment Battery also included twelve questions which were designed to gather information regarding students' attitudes and aspirations. Several of these questions dealt with students' perceptions of the importance of doing well in school. These responses were not analyzed on an individual student basis; rather, scores were compiled for each school and district which participated in the Assessment Program.
3. Attitude B: Self Perception. Several of the 12 attitude and aspiration questions dealt with students' perceptions

about their own worth. Again, these responses were not analyzed on an individual basis.

4. Attitude C: Attitude Toward School. Several of the 12 attitude and aspiration questions dealt with students' attitudes towards their school. These responses were not analyzed on an individual basis.

1968-69 DISTRICT HUMAN RESOURCE FACTORS:

5. Pupil/Teacher Ratio. The pupil/teacher ratio for each district was computed from records held in the Department of Education. It was computed by dividing the number of students in the district (as of the fourth Friday of the school year) by the number of teachers (as listed on the Department's Register of Professional Personnel).

6. Average Years Teaching Experience. The average number of years of experience for teachers in each district was computed from records held in the Michigan Department of Education.

7. Percentage of Teachers with Masters or Above. The per cent of teachers in each district who had completed at least a masters degree was computed from records held in the Michigan Department of Education.

8. Average Teacher Salary. The average teacher's salary for each district was computed from records held in the Michigan Department of Education.

1968-69 DISTRICT FINANCIAL RESOURCE FACTORS:

9. State Equalized Valuation Per Pupil. This measure was obtained from school district financial records held in the

Department of Education. It was calculated by dividing the district's SEV by its number of pupils (as of the fourth Friday of the school year).

10. Local Revenue Per Pupil. This measure was obtained from Department of Education records. It was computed by dividing the amount of money raised locally for public education (less money for community colleges) by the number of pupils in the district (as of the fourth Friday of the school year).

11. State Aid Per Pupil. This measure was obtained from Department of Education records. It was computed by dividing the amount of money received from the State for public education (less money for community colleges) by the number of pupils in the district (as of the fourth Friday of the school year).

12. K-12 Instructional Expense Per Pupil. The K-12 instructional expense per pupil was also computed for each district from records held in the Department of Education. It was computed by dividing the district's total instructional expense (less community college instructional expense) by the number of pupils in the district (as of the fourth Friday of the school year).

13. Total Current Operating Expenditure Per Pupil. This measure was obtained from records held in the Department of Education. It was computed by dividing the district's total current operating expenditure (less community college expenditure) by the number of pupils in the district (as of the fourth Friday of the school year).

VOCABULARY

14. Vocabulary. The Assessment Battery included fifty verbal analogy problems which measured students' knowledge of the meaning of words and their relationships. The vocabulary score was obtained from the number of correct responses to these problems.

BASIC SKILLS ACHIEVEMENT

15. Reading. The Assessment Battery included forty questions which tested students' reading achievement, vocabulary, and paragraph comprehension. The reading score was obtained from the number of correct responses to these questions.

16. English Expression. The Assessment Battery included forty-five questions at the fourth grade level and fifty-five questions at the seventh grade level which tested students' ability to recognize errors in spelling, use effective expression, identify correct word choices, and apply rules of grammar, punctuation, and capitalization. The English expression score was obtained from the number of correct responses to these questions.

17. Mathematics. The Assessment Battery included thirty questions which tested pupils' achievement in reasoning and problem solving, geometry and measurement, numbers and operations, relations, functions and graphs, and mathematical sentences and systems. The mathematics score was obtained from the number of correct responses to these questions.

18. Composite Achievement. The composite achievement score was built by averaging the scores of the reading, English

expression, and mathematics sections of the Assessment Battery. The vocabulary score was not averaged into the composite achievement score.

IV. NORM TABLES AND EDUCATION PROFILES

This section of the booklet describes the norm tables which are included in the right-hand pocket of the folder. It also explains how the data presented in the local district's computer printout may be plotted onto the norm tables to create district-level and school-level education profiles.

A. Explanation of the Norm Tables

Separate norm tables have been prepared from the fourth and seventh grade Assessment data. There are tables based on district scores and tables based on school scores. The tables have been prepared using State data, region data, community type data, and data within regions according to community type.

Local school officials will receive a total of fourteen norm tables: four tables based on State-wide data (one fourth grade district table, one fourth grade school table, one seventh grade district table, and one seventh grade school table); four tables based on data from the district's region; four tables based on data from the district's community type; and two tables based on data from schools of the same community type within the schools' region. Note: Some districts will only receive thirteen norm tables because, when districts were grouped by region according to community type, certain of these groupings contained insufficient data to construct seventh grade norm tables.[5]

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[5]Seventh grade school tables according to community type within region were not constructed for the following: Region 1/Cities, Region 1/Rural, Region 3/Cities, Region 3/Towns, and Region 4/Cities. A complete listing of Michigan's school districts organized by community type within geographic regions is included as Appendix C of this booklet.

The norm tables were constructed by computing percentile distributions for each Assessment variable. Each percentile distribution is a ranking of district scores which is divided into one hundred equal parts. Each part has an equal number--one per cent--of the total number of district scores. Percentile distributions are useful in showing where a percentile score lies in relation to other scores. A score which is at the fiftieth percentile is at the median (middle) of the distribution; a score at the seventy-fifth percentile is above seventy-five per cent--or three-quarters--of the scores in the distribution.

The norm tables also present the mean, standard deviation, and number of cases used in computing the distribution for each variable. FIGURE 2 provides an example of a norm table constructed with State-wide, district-level fourth grade data. This table indicates that the State-wide median--50th percentile--district score on socioeconomic status (SES) was 48.03. The 75th percentile score was 49.87 and the 25th percentile score was 46.53. In the bottom three rows of the table are the mean score, standard deviation, and number of districts used in the calculations for each variable. That is, the mean district score on socioeconomic status was 48.47; the standard deviation was 3.21; and 579 districts were used in calculating these values.

FIGURE 3 provides an example of a norm table constructed with State-wide, school-level, fourth grade data. The tables in FIGURES 2 and 3 are identical to the State-wide fourth grade tables included for the local district's use.

B. Explanation of the Michville District-Level Education Profile

The line on the State-wide table in FIGURE 2 is the fourth grade Michville education profile. The scores that have been plotted

MICHVILLE GRADE 4 DISTRICT PROFILE

GRADE 4 — DISTRICT NORMS — MICHIGAN

PERCENTILE DISTRIBUTION	SES	ATTITUDES AND ASPIRATIONS			SCHOOL HUMAN RESOURCES				SCHOOL FINANCIAL RESOURCES					ACHIEVEMENT ("OUTPUTS")				
															BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	PUPIL/TEACHER RATIO	AVERAGE YEARS TEACHING EXPERIENCE	PERCENTAGE OF TEACHERS WITH MASTERS OR ABOVE	AVERAGE TEACHER SALARY	STATE EQUALIZED VALUATION PER PUPIL	LOCAL REVENUE PER PUPIL	STATE SCHOOL AID PER PUPIL	K-12 INSTRUCTIONAL EXPENSE PER PUPIL	TOTAL CURRENT OPERATING EXPENSE PER PUPIL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	54.00	52.06	52.92	54.47	29.45	14.67	37.46	9864	27783	668	402	595	795	54.99	55.24	55.78	55.69	55.21
90	52.18	51.49	51.84	53.55	28.09	13.58	33.16	9478	21962	517	384	539	733	53.85	54.24	54.50	54.35	54.20
85	51.28	51.11	51.29	52.97	27.01	12.81	29.25	9173	19441	450	369	508	679	53.22	53.62	53.71	53.58	53.53
80	50.45	50.75	50.88	52.65	26.56	12.19	25.94	8949	17679	409	357	486	651	52.72	53.09	53.25	52.97	52.99
75	49.87	50.42	50.60	52.40	26.11	11.66	24.01	8761	16305	380	346	468	629	52.24	52.57	52.70	52.50	52.57
70	49.46	50.13	50.37	52.11	25.66	11.24	22.26	8646	15124	356	336	452	608	51.90	52.21	52.29	52.10	52.16
65	48.9	49.89	50.16	51.77	25.22	10.86	20.32	8530	14217	33	325	438	596	51.57	51.93	51.90	51.73	51.81
60	48.59	49.66	49.97	51.57	24.83	10.49	18.76	8415	13310	315	315	429	583	51.25	51.67	51.55	51.46	51.53
55	48.30	49.45	49.78	51.38	24.49	10.10	17.62	8311	12444	299	306	419	7	50.90	51.44	51.21	51.20	51.27
50	**48.03**	**49.25**	**49.55**	**51.15**	**24.16**	**9.71**	**16.48**	**8209**	**11925**	**283**	**298**	**410**	**560**	**50.60**	**51.20**	**50.83**	**50.93**	**50.95**
45	47.76	49.00	49.30	50.87	23.82	9.33	15.38	8106	11406	269	289	400	549	50.34	50.89	50.51	50.60	50.64
40	47.46	48.76	49.08	50.60	23.48	8.98	14.29	8000	10887	255	281	393	538	50.05	50.54	50.20	50.18	50.36
35	47.16	48.44	48.8	50.36	23.15	8.62	13.15	7890	10367	241	274	385	528	49.75	50.17	49.92	49.83	50.07
30	46.87	48.14	48.60	50.10	22.72	8.25	11.92	7776	9848	227	267	37	518	49.37	49.84	49.6	49.44	49.77
25	46.53	47.86	48.32	49.84	22.23	7.88	10.68	7662	9277	212	260	370	507	48.90	49.48	49.31	48.96	49.39
20	46.14	47.48	48.02	49.44	21.74	7.50	8.67	7503	8600	197	251	362	497	48.47	49.03	48.92	48.39	48.94
15	45.70	47.00	47.72	48.94	21.25	6.99	6.30	7291	7923	182	237	341	482	48.01	48.46	48.45	47.82	48.40
10	45.25	46.25	47.25	48.43	20.38	6.46	2.46	6896	7246	160	219	311	454	47.37	47.59	47.59	47.09	47.62
5	44.41	45.28	46.24	47.41	19.14	5.63	0.13	5957	6568	133	186	260	364	46.38	46.18	45.98	46.10	46.44
MEAN	48.47	48.99	49.47	51.06	24.26	10.04	17.60	8146.80	13947.28	320.98	300.16	419.84	575.52	50.66	51.01	50.95	50.81	50.94
STANDARD DEVIATION	3.21	2.23	2.17	2.10	3.66	3.50	11.07	1167.30	7882.42	165.03	72.20	96.53	134.03	2.73	2.68	2.79	2.97	2.66
NUMBER OF DISTRICTS	579	579	579	579	585	585	585	583	623	623	620	623	623	585	585	585	585	585

MICHVILLE SCHOOL DISTRICT
STATE MEDIAN

FIGURE 2

are the Michville district-level average scores on the Assessment measures. This district-level education profile for Michville (FIGURE 2) was constructed as follows:

Step One. Michville's fourth grade score on socioeconomic status, 50.2, was located on the line of figures opposite DISTRICT MEAN under 4th GRADE DISTRICT SUMMARY of the Michville printout (see FIGURE 1).

Step Two. The point in the socioeconomic status column of the district-level norm table corresponding to 50.2 was marked (see FIGURE 2). Michville's socioeconomic status was found to fall between 49.87 and 50.45, or at about the seventy-eighth percentile on the State-wide distribution of fourth grade district scores.

Step Three. Steps one and two were repeated for each variable listed in the Michville printout. For example (see FIGURE 2), Michville's fourth graders scored 47.2 (about the seventeenth percentile) on Attitude A: Importance of School Achievement and 48.7 (about the thirty-second percentile) on Attitude B: Self Perception.

Step Four. A line was drawn connecting the points plotted on the norm table (see FIGURE 2). Thus it can be seen how Michville's scores compare with the State-wide percentile distribution for each variable.

C. Explanation of the Michville School-Level Education Profiles

Michville's school-level education profiles were prepared only with Assessment data gathered at the school building level; that is, since human and financial resource data were available only at the district level, they were not included in the school norm tables. The procedure used was as follows (see FIGURE 3):

Step One. Able Elementary School's fourth grade score on socioeconomic status, 52.4, was located in the row of figures opposite SCHOOL MEAN on the Michville computer printout (see FIGURE 1). The Bush Elementary School mean on SES was found to be 48.5.

Step Two. The appropriate points in the socioeconomic status column of the school-level norm table were found and marked (see FIGURE 3). Able's SES score of 52.4 was found to fall between 51.60 and 52.46, or near the eightieth percentile. Bush's score of 48.5 was found to fall between 48.32 and 48.68 or at about the forty-seventh percentile on the State-wide distribution of fourth grade school scores.

MICHVILLE GRADE 4 SCHOOL PROFILES

SCHOOL NORMS

GRADE 4 — MICHIGAN

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS")				ACHIEVEMENT ("OUTPUTS")				
	SES	ATTITUDES AND ASPIRATIONS				BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	58.99	53.32	54.03	54.80	57.24	56.46	56.45	56.73	56.37
90	55.31	52.68	53.03	53.20	55.16	55.14	55.23	55.30	55.03
85	53.46	52.25	52.31	53.23	54.09	54.30	54.28	54.46	54.22
80	52.46	51.84	51.84	52.82	53.36	53.58	53.63	53.68	53.54
75	51.80	51.49	51.42	52.42	52.78	53.00	53.02	53.03	52.96
70	50.88	51.16	51.04	52.03	52.20	52.48	52.51	52.44	52.41
65	50.22	50.84	50.69	51.66	51.69	51.99	52.02	51.96	51.93
60	49.66	50.53	50.40	51.32	51.25	51.54	51.54	51.51	51.50
55	49.17	50.23	50.11	50.97	50.80	51.13	51.08	51.06	51.09
50	**48.68**	**49.95**	**49.83**	**50.61**	**50.36**	**50.77**	**50.64**	**50.63**	**50.69**
45	48.22	49.66	49.56	50.25	49.97	50.32	50.24	50.20	50.30
40	47.95	49.34	49.28	49.87	49.55	49.87	49.80	49.77	49.86
35	47.57	48.97	48.97	49.43	49.05	49.36	49.30	49.21	49.41
30	47.13	48.59	48.65	48.94	48.49	48.72	48.81	48.55	48.91
25	46.75	48.18	48.33	48.59	47.91	48.11	48.14	47.91	48.24
20	46.31	47.73	47.95	47.81	47.18	47.32	47.30	47.10	47.39
15	45.84	47.24	47.50	47.00	46.28	46.28	46.20	46.14	46.32
10	45.25	46.53	46.60	46.00	44.78	44.64	44.72	44.71	44.88
5	44.40	45.43	46.04	44.63	42.86	42.35	42.26	42.40	42.40
MEAN	49.72	49.73	49.93	50.26	50.27	50.32	50.31	50.33	50.34
STANDARD DEVIATION	4.47	2.48	2.50	3.13	4.07	4.06	4.10	4.14	3.98
NUMBER OF SCHOOLS	2433	2433	2433	2433	2492	2492	2492	2492	2492

■■■■ ABLE ELEM.
▬▬▬ BUSH ELEM.
STATE MEDIAN

FIGURE 3

Step Three. Steps one and two were repeated for the scores on each variable listed for the Able and Bush Elementary Schools' fourth grades (see FIGURE 3). Able's fourth graders scored 49.3 (about the fortieth percentile) and Bush's fourth graders scored 45.6 (about the sixth percentile) on Attitude A: Importance of School Achievement.

Step Four. Lines were drawn on the norm table connecting the points for each school (see FIGURE 3). It is possible to compare the two elementary schools' fourth grades with each other and to relate their scores to the average scores of all fourth grades, as a group, in the State.

D. Uses of the Education Profiles

The introduction to this booklet stated that construction of education profiles would enable school officials and citizens to understand the levels of educational performance and the levels of factors related to performance in their district and schools. FIGURES 2 and 3 make this possible for Michville.

FIGURE 2, for example, indicates the following about Michville: its fourth grade students scored low on composite achievement and reading and below the median on vocabulary. Its fourth grade students also scored low on Attitude A: Importance of School Achievement, below the median on Attitude B: Self Perception, and high on socio-economic status. Michville has a low pupil/teacher ratio relative to the State median. It is above the median in percentage of teachers with masters or above and below the median on average teachers' salary.

FIGURE 3 also provides Michville's citizens and educators with interesting information about its two elementary schools. It clearly shows that the fourth grade children of Able Elementary School scored consistently higher on the Assessment variables than did the fourth grade children of Bush Elementary. This might imply that the children of Bush Elementary have a need for compensatory education assistance.

It is hoped that construction of educational profiles similar to these constructed for Michville will enable school officials and citizens throughout Michigan to gain greater understanding about the relative standing of their district and its schools and therefore be helpful to them as they make decisions about the allocation of educational resources and the design of curricula.

APPENDIX A

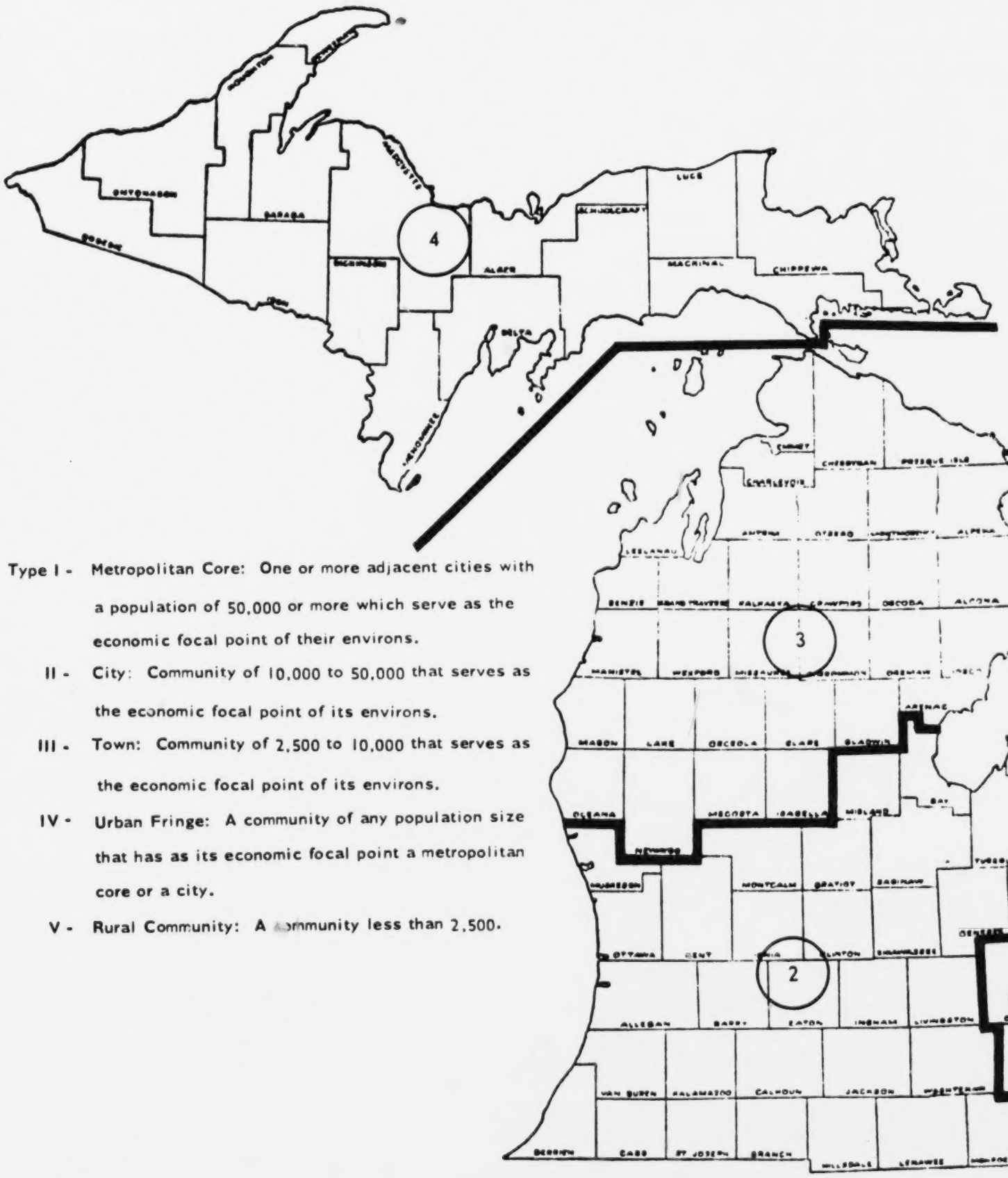
REGION AND COMMUNITY TYPE CATEGORIES

Region 1 - Wayne, Oakland and Macomb Counties.

2 - All counties in Southern Michigan that are south of and including Muskegon, Kent, Montcalm, Gratiot, Midland and Bay counties. This excludes Region 1.

3 - All counties that are north of the above mentioned line and that are in the Lower Peninsula.

4 - All counties that are in the Upper Peninsula.



Type I - Metropolitan Core: One or more adjacent cities with a population of 50,000 or more which serve as the economic focal point of their environs.

II - City: Community of 10,000 to 50,000 that serves as the economic focal point of its environs.

III - Town: Community of 2,500 to 10,000 that serves as the economic focal point of its environs.

IV - Urban Fringe: A community of any population size that has as its economic focal point a metropolitan core or a city.

V - Rural Community: A community less than 2,500.

APPENDIX B

DEFINITIONS

MEAN - an average score found by adding the score of each individual in a group to obtain a group score, then dividing the group score by the number of individuals in the group.

MEDIAN - the mid-point of a group of scores. The median is chosen so that there will be an equal number of scores above and below the chosen point.

PERCENTILE - a value, at or below which falls a given per cent of the scores obtained by measuring all individuals in a given comparison group. If, for example, the 25th percentile is a school mean of 48.00, then 25 per cent of the school means fall at or below 48.00.

STANDARD DEVIATION - a measure of spread or dispersion among a group of scores. Typically about two-thirds of the scores will be found within one standard deviation above and below the mean, and over 99 per cent within three standard deviations above and below the mean.

VARIABLE - a quantity which may have any one of a set of possible values.

A P P E N D I X C.

Listing of Michigan School Districts

by Region and Community Type

MICHIGAN SCHOOL DISTRICTS
GROUPED BY REGION AND COMMUNITY TYPE

Region 1

I METROPOLITAN CORE CITIES

82-010 Detroit City Sch Dist
82-060 Hamtramck City Schs
82-070 Highland Park City Schs
63-030 Pontiac City Sch Dist

II CITIES

50-160 Mt Clemens Comm Sch Dist
63-100 Novi Comm Sch Dist
82-100 Plymouth Comm Sch Dist

III TOWNS

50-040 Anchor Bay Sch Dist
63-210 Holly Area Sch Dist
63-220 Huron Valley Schs
82-340 Huron Sch Dist
63-230 Lake Orion Comm Sch Dist
82-390 Northville Pub Schs
63-110 Oxford Area Comm Sch Dist
50-180 Richmond Comm Schs
63-260 Rochester Comm Sch Dist
50-190 Romeo Comm Schs
82-130 Romulus Comm Schs
82-430 Van Buren Pub Schs
63-290 Walled Lake Cons Sch Dist

IV URBAN FRINGE

82-020 Allen Park Pub Schs
63-070 Avondale Sch Dist
63-050 Berkley City Sch Dist
63-010 Birmingham City Sch Dist
63-080 Bloomfield Hills Sch Dist
50-010 Center Line Pub Schs
82-025 Cherry Hill Sch Dist
50-080 Chippewa Valley Schs
63-150 City of Troy Sch Dist
63-090 Clarenceville Sch Dist
63-270 Clawson City Sch Dist
50-070 Clintondale Pub Schs
82-230 Crestwood Sch Dist
82-030 Dearborn City Sch Dist
82-040 Dearborn Heights Sch Dist 7
50-020 East Detroit City Sch Dist
82-250 Ecorse Pub Sch Dist
82-210 Fairlane Sch Dist
63-200 Farmington Pub Sch Dist
63-020 Ferndale City Sch Dist
50-090 Fitzgerald Pub Schs
82-180 Flat Rock Comm Schs
50-100 Fraser Pub Schs
82-050 Garden City Sch Dist
82-290 Gibraltar Sch Dist
82-055 Grosse Pte Pub Schs
82-300 Grosse Ile Twp Schs
82-320 Harper Woods City Sch Dist
63-130 Hazel Park City Sch Dist
82-330 Heintzen Pub Sch Dist
82-080 Inkster City Sch Dist
50-140 L'anse Creuse Pub Schs
50-120 Lake Shore Pub Schs
50-130 Lakeview Pub Schs
63-280 Lamphere Pub Schs
82-090 Lincoln Park City Schs
82-095 Livonia Pub Schs
63-140 Madison Hgts Sch Dist
82-045 Melvindale N Allen Pk S D
82-220 North Dearborn Hgts Sch Dist
63-250 Oak Park City Sch Dist
82-110 Redford Union Sch Dist
82-120 River Rouge City Schs
82-400 Riverview Comm Sch Dist
50-030 Roseville City Sch Dist
63-040 Royal Oak City Sch Dist
50-200 South Lake Schs
82-140 South Redford Sch Dist
63-060 Southfield Pub Sch Dist
82-405 Southgate Comm Sch Dist
82-150 Taylor Sch Dist
82-155 Trenton Pub Schs
50-210 Utica Comm Schs
50-220 Van Dyke Comm Schs
50-230 Warren Cons Schs
50-240 Warren Woods Pub Schs
82-160 Wayne Comm Schs
63-160 West Bloomfield Twp Sch Dist
82-240 Westwood Comm Schs
82-365 Woodhaven Sch Dist
82-170 Wyandotte City Sch Dist

Region 1, continued

V RURAL

50-050 Armada Area Schs
63-180 Brandon Twp Sch Dist
63-190 Clarkston Comm Sch Dist
50-170 New Haven Comm Schs
63-240 So Lyon Comm Schs
63-300 Waterford Twp Sch Dist

Region 2

I METROPOLITAN CORE CITIES

81-010 Ann Arbor City Sch Dist
13-020 Battle Creek City Schs
09-010 Bay City Sch Dist
25-010 Flint City Sch Dist
41-010 Grand Rapids City Sch Dist
38-170 Jackson Union Sch Dist
39-010 Kalamazoo City Sch Dist
33-020 Lansing Pub Sch Dist
61-010 Muskegon City Sch Dist
61-020 Muskegon Hgts City Sch Dist
73-010 Saginaw City Sch Dist

II CITIES

46-010 Adrian City Sch Dist
13-010 Albion City Schs
11-010 Benton Harbor City Sch Dist
70-010 Grand Haven City Sch Dist
70-020 Holland City Sch Dist
56-010 Midland City Sch Dist
58-010 Monroe City Pub Schs
11-300 Niles Comm Sch Dist
78-110 Owosso Pub Sch Dist
74-010 Port Huron City Sch Dist
11-020 St Joseph City Sch Dist
81-020 Ypsilanti City Sch Dist

III TOWNS

74-030 Algonac Comm Sch Dist
03-030 Allegan Pub Schs
29-010 Alma Pub Schs
32-010 Bad Axe Pub Schs
58-030 Bedford Pub Sch Dist
34-080 Belding Area Sch Dist
46-040 Blissfield Comm Schs
47-010 Brighton Area Schs
11-310 Buchanan Pub Sch Dist
79-020 Caro Comm Schs
14-010 Cassopolis Pub Schs
23-030 Charlotte Pub Schs
81-040 Chelsea Sch Dist
73-110 Chesaning Union Schs
25-150 Clio Area Sch Dist
12-010 Coldwater Comm Schs
78-100 Corunna Pub Sch Dist
76-080 Croswell Lexington Comm S D
14-020 Dowagiac Union Schs
58-050 Dundee Comm Sch Dist
78-030 Durand Area Schs
74-050 East China Twp Sch Dist
23-050 Eaton Rapids Pub Schs
39-050 Galesburg Augusta Comm S D
59-070 Greenville Pub Schs
32-060 Harbor Beach Comm Sch
80-120 Hartford Pub Sch Dist
03-030 Hastings Pub Sch Dist
30-020 Hillsdale Comm Schs
47-070 Howell Pub Schs
70-190 Hudsonville Pub Sch Dist
34-010 Ionia City Sch Dist
29-060 Ithaca Pub Schs
44-010 Lapeer Pub Schs
41-170 Lowell Area Schs
13-110 Marshall Pub Schs
81-100 Milan Area Schs
61-180 Montague Pub Schs
11-200 New Buffalo Area Sch Dist
03-020 Otsego Pub Schs
80-160 Paw Paw Pub Sch Dist
78-080 Perry Pub Sch Dist
03-010 Plainwell Comm Schs
34-110 Portland Pub Sch Dist
41-210 Rockford Pub Schs
29-100 Saint Louis Pub Schs
81-120 Saline Area Sch Dist
79-145 Sebewaing Unionville Schs
80-010 South Haven Pub Schs
41-240 Sparta Area Schs
19-140 St Johns Pub Schs
75-010 Sturgis City Sch Dist
25-180 Swartz Creek Comm Sch Dist
46-140 Tecumseh Pub Schs
75-080 Three Rivers Pub Sch Dist
79-150 Vassar Pub Schs
39-170 Vicksburg Comm Schs

Region 2, continued

III TOWNS, continued

61-240 White Hall Dist Schs
33-230 Williamston Comm Schs
70-350 Zeeland Pub Sch Dist

IV URBAN FRINGE

25-130 Atherton Comm Sch Dist
09-030 Bangor Twp Schs
19-100 Bath Comm Schs
25-240 Beecher Sch Dist
25-060 Bendle Pub Sch Dist
25-230 Bentley Comm Sch Dist
73-180 Bridgeport Comm Sch Dist
73-080 Buena Vista Sch Dist
25-080 Carman Sch Dist
73-030 Carrollton Sch Dist
39-030 Comstock Pub Schs
41-080 Comstock Park Sch Dist
25-140 Davison Comm Schs
19-010 DeWitt Pub Schs
41-090 E Gr Rapids Pub Schs
38-090 E Jackson Pub Schs
33-010 East Lansing Sch Dist
09-050 Essexville Hampton Sch Dist
25-120 Flushing Comm Schs
41-110 Forest Hills Pub Schs
61-420 Fruitland Twp Sch Dist 1F
61-080 Fruitport Comm Schs
25-070 Genesee Sch Dist
41-120 Godfrey Lee Pub Sch Dist
41-020 Godwin Hgts Pub Schs
23-060 Grand Ledge Pub Schs
25-030 Grand Blanc Comm Schs
41-130 Grandville Pub Schs
11-670 Hagar Twp Sch Dist 6
13-070 Harper Creek Comm Schs
33-060 Haslett Pub Schs
33-070 Holt Pub Schs
25-110 Kearsley Comm Schs
41-140 Kelloggsville Pub Schs
41-145 Kenowa Hills Pub Schs
41-160 Kentwood Pub Schs
11-030 Lakeshore Sch Dist
13-090 Lakeview Cons Sch Dist
46-090 Madison Sch
74-100 Marysville Pub Sch Dist
33-130 Mason Pub Schs
38-120 Michigan Center Sch Dist
61-060 Mona Shores Sch Dist
25-040 Mt Morris Cons Schs
61-230 North Muskegon City Sch Dist
41-025 Northview Pub Sch
33-170 Okemos Pub Schs
23-490 Oneida Twp Sch Dist 3
61-190 Orchard View Schs
39-130 Parchment Sch Dist
13-120 Pennfield Sch Dist
39-140 Portage Pub Schs
23-090 Potterville Pub Schs
61-220 Reeths Puffer Schs
73-040 Saginaw Twp Comm Schs
11-830 Sodus Twp Sch Dist 5
13-030 Springfield City Sch Dist
70-300 Spring Lake Pub Sch Dist
73-255 Swan Valley Sch Dist
38-020 Vandercook Lake Pub Sch Dist
33-215 Waverly Schs
25-210 Westwood Hgts Sch Dist
81-150 Willow Run Pub Schs
41-026 Wyoming Pub Schs

V RURAL

46-020 Addison Comm Schs
58-020 Airport Comm Sch Dist
79-010 Akron Fairgrove Schs
03-140 Allegan Co Sch Dist 17
70-040 Allendale Pub Sch Dist
44-020 Almont Comm Schs
29-130 Arcada Twp Sch Dist 1F
29-170 Arcada Twp Sch Dist 6
29-020 Ashley Comm Schs
13-050 Athens Area Schs
80-020 Bangor Pub Schs
80-240 Bangor Twp Sch Dist 8
23-010 Bellevue Comm Schs
34-140 Berlin Twp Sch Dist 3F
34-150 Berlin Twp Sch Dist 5F
11-240 Berrien Springs Pub Sch Dist
73-170 Birch Run Area Sch Dist
32-220 Bloomfield Twp Sch Dist 4
32-230 Bloomfield Twp Sch Dist 5
32-250 Bloomfield Twp Sch Dist 7F
80-090 Bloomingdale Pub Sch Dist
11-210 Brandywine Pub Sch Dist
29-040 Breckenridge Comm Schs
11-340 Bridgman Pub Sch
46-050 Britton Macon Area Sch
12-020 Bronson Comm Sch Dist
76-060 Brown City Comm Sch Dist

Region 2, continued

V RURAL, continued

56-020 Bullock Creek Sch Dist
44-190 Burnside Twp Sch Dist 10F
75-020 Burr Oak Comm Sch Dist
41-040 Byron Center Pub Schs
78-020 Byron Area Schs
41-050 Caledonia Comm Schs
30-010 Camden Frontier Sch
34-250 Campbell Twp Sch Dist 4
74-040 Capac Comm Sch Dist
59-020 Carson City Crystal Area S D
76-070 Carsonville Comm Sch Dist
03-250 Casco Twp Sch Dist 4
32-030 Caseville Pub Sch
79-030 Cass City Pub Schs
41-070 Cedar Springs Pub Schs
59-125 Central Montcalm Pub Schs
75-030 Centreville Pub Sch Dist
23-280 Chester Twp Sch Dist 3F
32-040 Church Sch
39-020 Climax Scotts Comm Schs
46-060 Clinton Comm Schs
56-030 Coleman Comm Sch Dist
32-260 Colfax Twp Sch Dist 1F
32-270 Colfax Twp Sch Dist 2
32-290 Colfax Twp Sch Dist 6
32-300 Colfax Twp Sch Dist 7
11-330 Coloma Comm Schs
75-040 Colon Comm Sch Dist
38-040 Columbia Sch Dist
38-080 Concord Comm Schs
75-050 Constantine Pub Sch Dist
75-130 Constantine Twp Sch Dist 5F
70-120 Coopersville Pub Sch Dist
80-040 Covert Pub Schs
33-040 Dansville Ag Sch
80-050 Decatur Pub Schs
76-090 Deckerville Comm Sch Dist
46-070 Deerfield Pub Schs
08-010 Delton Kellogg Sch Dist
81-050 Dexter Comm Sch Dist
44-050 Dryden Comm Schs
34-340 Easton Twp Sch Dist 6F
11-250 Eau Claire Pub Sch Dist
13-060 Eckford Comm Schs
14-030 Edwardsburg Pub Schs
32-050 Elkton Pigeon Bayport S D
03-050 Fennville Pub Schs
25-100 Fenton Area Pub Schs
19-070 Fowler Pub Schs
47-030 Fowlerville Comm Schs
73-190 Frankenmuth Sch Dist
13-340 Fredonia Twp Sch Dist 2F
73-200 Freeland Comm Sch Dist
29-050 Fulton Schs
11-160 Galien Twp Sch
03-440 Ganges Twp Sch Dist 4
80-110 Gobles Pub Sch Dist
44-240 Goodland Twp Sch Dist 1
44-260 Goodland Twp Sch Dist 2
44-270 Goodland Twp Sch Dist 3
25-050 Goodrich Area Sch Dist
38-050 Grass Lake Comm Schs
39-065 Gull Lake Comm Schs
03-100 Hamilton Comm Schs
80-390 Hamilton Twp Sch Dist 6
38-100 Hanover Horton Schs
47-060 Hartland Cons Sch
73-210 Hemlock Pub Sch Dist
61-120 Holton Pub Schs
13-080 Homer Comm Schs
03-070 Hopkins Pub Sch
46-080 Hudson Area Schs
58-070 Ida Pub Sch Dist
44-060 Imlay City Comm Schs
34-360 Ionia Twp Sch Dist 2F
34-380 Ionia Twp Sch Dist 5
34-390 Ionia Twp Sch Dist 6
58-080 Jefferson Cons Sch Dist
70-175 Jenison Pub Schs
30-030 Jonesville Comm Schs
41-150 Kent City Comm Schs
79-080 Kingston Comm Sch
78-040 Laingsburg Comm Sch Dist
25-200 Lake Fenton Sch
25-280 Lakeville Comm Sch Dist
59-090 Lakeview Comm Schs
34-090 Lakewood Pub Schs
80-130 Lawrence Pub Sch Dist
80-140 Lawton Comm Sch Dist
33-100 Leslie Pub Schs
32-390 Lincoln Twp Sch Dist 1
81-070 Lincoln Cons Sch Dist
25-250 Linden Comm Sch Dist
30-040 Litchfield Comm Schs
81-080 Manchester Pub Sch Dist
23-065 Maple Valley Sch Dist
14-050 Marcellus Comm Schs
13-095 Mar Lee Cons Sch Dist
76-140 Marlette Comm Sch Dist
03-060 Martin Pub Schs
58-090 Mason Cons Sch Dist
80-150 Mattawan Cons Sch Dist

Region 2, continued

V RURAL, continued

79-090 Mayville Comm Schs
32-410 Meade Twp Sch Dist 3
74-120 Memphis Comm Schs
75-060 Mendon Comm Sch Dist
56-050 Meridian Pub Sch Dist
73-230 Merrill Comm Sch Dist
79-100 Millington Comm Schs
59-045 Montabella Comm S D
25-260 Montrose Twp Schs
46-100 Morenci Area Schs
78-060 Morrice Area Schs
75-300 Mottville Twp Sch Dist 3F
38-130 Napoleon Sch Dist
78-070 New Lothrop Area Pub S D
13-580 Newton Twp Sch Dist 10F
30-050 North Adams Pub Schs
32-080 North Huron Schs
34-480 North Plains Twp Sch Dist 1F
44-090 North Branch Area Schs
38-140 Northwest Sch Dist
75-100 Nottawa Comm Sch
61-065 Oakridge Sch Dist
23-080 Olivet Comm Schs
46-110 Onsted Comm Schs
34-510 Orange Twp Sch Dist 1F
34-5[illegible] Orange Twp Sch Dist 3
34-530 Orange Twp Sch Dist 5
34-540 Orange Twp Sch Dist 7
34-600 Orleans Twp Sch Dist 9
34-610 Orleans Twp Sch Dist 10
19-120 Ovid Elsie Area Schs
32-090 Owendale Gagetown Area S D
34-040 Palo Comm Sch Dist
76-180 Peck Comm Sch
19-125 Pewamo-Westphalia Comm S D
47-080 Pinckney Comm Schs
09-090 Pinconning Area Schs
30-060 Pittsford Rural Ag Schs
32-120 Port Austin Pub Schs
32-130 Port Hope Comm Schs
34-700 Portland Twp Sch Dist 4F
34-710 Portland Twp Sch Dist 5F
12-040 Quincy Comm Sch Dist
61-210 Ravenna Pub Schs
30-070 Reading Comm Schs
32-140 Red School
79-110 Reese Pub Schs
11-033 River Valley Sch Dist
29-090 Riverdale Elem Sch
34-750 Ronald Twp Sch Dist 8
23-590 Roxand Twp Sch Dist 12
32-450 Rubicon Twp Sch Dist 4
46-130 Sand Creek Comm Schs
76-210 Sandusky Comm Sch Dist
76-710 Sanilac Twp Sch Dist 1
34-120 Saranac Comm Sch Dist
03-080 Saugatuck Pub Schs
39-160 Schoolcraft Comm Schs
34-760 Sebewa Twp Sch Dist 1F
34-800 Sebewa Twp Sch Dist 3
29-790 Seville Twp Sch Dist 4F
32-530 Sheridan Twp Sch Dist 4
32-540 Sheridan Twp Sch Dist 5
32-510 Sheridan Twp Sch Dist 2F
32-610 Sigel Twp Sch Dist 3
32-620 Sigel Twp Sch Dist 4
32-630 Sigel Twp Sch Dist 6
32-600 Sigel Twp Sch Dist 1F
38-150 Springport Pub Sch
73-240 St Charles Comm Sch Dist
33-200 Stockbridge Comm Schs
58-100 Summerfield Sch Dist
29-110 Sumner Elem Sch
13-130 Tekonsha Comm Sch
08-050 Thornapple Kellogg Sch Dist
59-080 Tri Co Area Schs
32-170 Ubly Comm Schs
13-135 Union City Comm Sch Dist
32-650 Verona Twp Sch Dist 1F
32-680 Verona Twp Sch Dist 5
59-150 Vestaburg Comm Schs
30-080 Waldron Area Schs
11-320 Watervliet Sch Dist
03-040 Wayland Union Schs
33-220 Webberville Pub Schs
70-070 West Ottawa Pub Sch Dist
38-010 Western Sch Dist
75-070 White Pigeon Comm Sch Dist
58-110 Whiteford Agri Sch Dist
81-140 Whitmore Lake Pub Sch Dist
74-130 Yale Pub Sch Dist

Region 3

I METROPOLITAN CORE CITIES

(none)

Region 3, continued

II CITIES

04-010 Alpena City Sch Dist
83-010 Cadillac Area Pub Schs
37-010 Mt Pleasant City Sch Dist
28-010 Traverse City Pub Sch Dist

III TOWNS

54-010 Big Rapids Pub Schs
15-050 Charlevoix Pub Sch Dist
16-015 Cheboygan Area Schs
18-010 Clare Pub Schs
62-040 Fremont Pub Sch Dist
69-020 Gaylord Comm Schs
26-040 Gladwin Comm Schs
53-040 Ludington Area Sch Dist
51-070 Manistee City Schs
24-070 Petoskey Sch Dist
71-080 Rogers Union Sch Dist
35-030 Tawas Area Schs
15-025 Twin Valley Pub Sch Dist

IV URBAN FRINGE

(none)

V RURAL

05-010 Alba Pub Sch
01-010 Alcona Comm Schs
06-010 Arenac Eastern Sch Dist
60-010 Atlanta Comm Schs
06-020 Au Gres Sims Sch Dist
43-040 Baldwin Pub Sch Dist
37-040 Beal City Sch
51-020 Bear Lake Sch
15-010 Beaver Island Comm Schs
26-010 Beaverton Rural Schs
05-040 Bellaire Pub Sch
64-010 Benona Comm Sch Dist
10-015 Benzie Co Central Schs
62-470 Big Jackson Sch Dist
15-030 Boyne Falls Pub Sch Dist
28-035 Buckley Comm Sch Dist
15-035 Central Lake Pub Sch
69-070 Chester Twp Sch Dist 1
54-025 Chippewa Hills Sch Dist
57-100 Clam Union Twp Sch Dist 2
54-100 Colfax Twp Sch Dist 3F
68-030 Comins Twp Sch Dist
20-015 Crawford AuSable Schs
24-010 Cross Village Sch Dist
64-020 Elbridge Comm Sch Dist
05-060 Elk Rapids Schs
15-065 Ellsworth Comm Sch
67-020 Evart Pub Sch
40-060 Excelsior Twp Sch Dist 1
57-010 Falmouth Elem Sch Dist
18-020 Farwell Area Schs
64-030 Ferry Comm Sch Dist
28-060 Fife Lake Comm Sch Dist
10-025 Frankfort Area Schs
53-030 Freesoil Comm Sch Dist
40-110 Garfield Twp Sch Dist 3F
72-010 Gerrish Higgins Sch Dist
45-010 Glen Lake Comm Sch Dist
64-050 Golden Comm Sch Dist
54-140 Grant Twp Sch Dist 2
62-050 Grant Pub Sch Dist
28-220 Green Lake Twp Sch Dist 1F
35-020 Hale Area Schs
24-020 Harbor Springs Sch Dist
18-060 Harrison Comm Schs
64-040 Hart Pub Sch Dist
62-060 Hesperia Comm Sch Dist
60-020 Hillman Comm Schs
72-020 Houghton Lake Comm Schs
16-050 Inland Lakes Sch Dist
69-030 Johannesburg-Central Sch
51-045 Kaleva Norman Dickson Schs
40-040 Kalkaska Pub Schs
28-090 Kingsley Area Sch Dist
57-020 Lake City Area Sch Dist
45-020 Leland Pub Sch Dist
24-030 Littlefield Pub Sch Dist
16-070 Mackinaw City Pub Schs
05-070 Mancelona Pub Sch
83-060 Manton Cons Sch Dist
67-050 Marion Pub Sch
53-010 Mason Co Central Sch Dist
53-020 Mason Co Eastern Sch Dist
57-030 McBain Rural Ag Sch Dist
83-070 Mesick Cons Sch Dist
68-010 Mio Au Sable Sch
54-040 Morley Stanwood Comm Schs
62-070 Newaygo Pub Sch Dist
45-040 Northport Pub Sch Dist
40-140 Oliver Twp Sch Dist 2
71-050 Onaway Area Comm Sch Dist
51-060 Onekema Cons Sch

Region 3, continued

V RURAL, continued

35-010 Oscoda Area Schs
24-040 Pellston Pub Sch Dist
64-070 Pentwater Pub Sch Dist
67-055 Pine River Area Schs
62-080 Pineview Sch Dist
71-060 Posen Cons Sch Dist
67-060 Reed City Pub Schs
40-020 S Boardman Area Sch
64-080 Shelby Pub Sch Dist
37-060 Shepherd Pub Sch Dist
72-040 St Helen Sch Dist
06-050 Standish Sterl Comm Sch Dist
45-050 Suttons Bay Pub Sch Dist
69-040 Vanderbilt-Area Sch
65-045 W Branch Rose City Area Schs
64-090 Walkerville Rural Comm S D
64-095 Weare Crystal Comm Sch Dist
62-090 White Cloud Pub Schs
35-040 Whittemore Prescott Area S D
16-100 Wolverine Comm Sch Dist

Region 4

I METROPOLITAN CORE CITIES

(none)

II CITIES

21-010 Escanaba Area Pub Schs
27-020 Ironwood Area Schs
52-170 Marquette City Sch Dist
55-100 Menominee Area Pub Sch
17-010 Sault Ste Marie Area Schs

III TOWNS

27-010 Bessemer City Sch Dist
22-030 Breitung Township Sch Dist
36-015 Forest Park Sch Dist
21-020 Gladstone Pub Sch Dist
31-010 Hancock City Sch Dist
22-010 Iron Mountain City Sch Dist
52-180 Ishpeming Pub Sch Dist
07-040 L'anse Twp Sch Dist
31-130 Lake Linden Hubbell Sch Dist
77-010 Manistique Area Schs
02-070 Munising Pub Schs
52-090 Negaunee Sch Dist
22-025 Norway Vulcan Area Schs
66-050 Ontonagon Area Schools
31-110 Portage Twp Sch Dist
49-010 St Ignace City Sch Dist
48-040 Tahquamenon Area Schs
27-070 Wakefield Twp Sch Dist
36-025 West Iron County Sch Dist

IV URBAN FRINGE

(none)

V RURAL

31-020 Adams Twp Sch Dist
42-010 Allouez Twp Schs
07-010 Arvon Twp Sch Dist
02-010 Autrain Twp Sch
07-020 Baraga Twp Sch Dist
21-090 Bark River Harris Sch Dist
66-010 Bergland Comm Sch Dist
27-030 Bessemer Twp Sch Dist
21-065 Big Bay De Noc Sch Dist
49-020 Bois Blanc Pines Sch Dist
21-030 Brampton Twp Sch Dist
49-030 Brevort Twp Sch Dist
17-140 Brimley Pub Schs
02-020 Burt Twp Sch
31-030 Calumet Pub Sch Dist
31-040 Calumet Twp Sch Dist 2
55-010 Carney Nadeau Pub Schs
52-010 Champion-Humboldt Spurr S D
31-050 Chassell Twp Sch Dist
52-020 Chocolay Twp Sch Dist
07-030 Covington Sch Dist
21-040 Delta Co Sch Dist 7
17-050 Detour Twp Sch
31-070 Elm River Twp Sch
52-030 Ely Twp Sch Dist
49-055 Engadine Cons Schs
66-045 Ewen Trout Creek Cons S D
21-100 Flat Rock Public Sch Dist
52-040 Forsyth Sch Dist
42-030 Grant Twp Schs
55-060 Hermansville Pub Sch
52-050 Ishpeming Twp Sch Dist
49-040 Les Cheneaux Comm Sch Dist
02-050 Limestone Twp Sch
49-110 Mackinac Island Pub Sch Dist
27-060 Marenisco Sch Dist

Region 4, continued

V RURAL, continued

52-060 Marquette Twp Sch Dist
02-060 Mathias Twp Sch
49-070 Moran Twp Sch Dist
52-080 National Mine Sch Dist
22-045 North Dickinson Co Sch Dist
31-100 Osceola Twp Sch Dist
17-090 Pickford Pub Schs
52-100 Powell Twp Sch Dist
55-110 Powers Spalding Pub Sch
21-060 Rapid River Pub Schs
52-110 Republic Michigamme Schs
21-130 Rock Pub Sch Dist
02-080 Rock River Twp Sch
17-110 Rudyard Twp Sch
52-130 Sands Twp Sch Dist
52-140 Skandia Sch Dist
49-100 St Ignace Twp Sch Dist
31-140 Stanton Twp Sch Dist
55-120 Stephenson Area Pub Schs
27-080 Watersmeet Twp Sch Dist
52-160 Wells Twp Sch Dist
66-070 White Pine Sch Dist
17-160 Whitefish Sch

APPENDIX D

BIBLIOGRAPHY OF PUBLISHED AND PLANNED ASSESSMENT REPORTS

1. Purposes and Procedures of the Michigan Assessment of Education. Lansing, Michigan: Michigan Department of Education, Assessment Report No. 1, 1969.

2. Activities and Arrangements for the 1969-70 Michigan Assessment of Education. Lansing, Michigan: Michigan Department of Education, Assessment Report No. 2, 1969.

3. Research into the Correlates of School Performance: A Review and Summary of the Literature. Lansing, Michigan: Michigan Department of Education, Assessment Report No. 3, 1970.

4. Levels of Educational Performance and Related Factors in Michigan. Lansing, Michigan: Michigan Department of Education, Assessment Report No. 4, 1970.

5. Distribution of Educational Performance and Related Factors in Michigan. Lansing, Michigan: Michigan Department of Education Assessment Report No. 5, 1970.

6. Local District Report. Lansing, Michigan: Michigan Department of Education, Assessment Report No. 6, 1970.

7. Levels of Educational Performance and Related Factors in Michigan: A Supplement. Lansing, Michigan: Michigan Department of Education, Assessment Report No. 7, 1970. (Tentative title; planned for August/September publication).

8. Distribution of Educational Performance and Related Factors in Michigan: A Supplement. Lansing, Michigan: Michigan Department of Education, Assessment Report No. 8, 1970. (Tentative title; planned for August/September publication).

9. Correlates of School Performance in Michigan. Lansing, Michigan: Michigan Department of Education, Assessment Report No. 9, 1970. (Tentative title; planned for September/October publication).

LOCAL DISTRICT REPORT: EXPLANATORY MATERIALS

ERRATA

In the attempt to make Assessment results available to local districts as quickly as possible, four errors in Local District Report: Explanatory Materials went unnoticed until after the booklet was printed. Therefore the local district official is requested to make the following corrections:

p. 1. The first sentence of the second paragraph should read:
"This explanatory booklet has four sections."

p. 2. The first line should read:
"...profiles similar to those prepared for the hypothetical Michville district and its schools."

p. 6. The seventh line of the first paragraph should read:
"...included with these materials contains the local scores on these factors."

p. 17. and all DISTRICT NORMS tables.

The figures in the column labeled PUPIL/TEACHER RATIO on the DISTRICT NORMS tables were erroneously printed in reverse order. This must be kept in mind when plotting district education profiles because the "better" a district is on this measure--that is, the lower its pupil/teacher ratio--the lower it will fall on the present percentile scale. It is therefore suggested that district officials reverse their pupil/teacher ratio percentile ranks when plotting the profiles. For example, a pupil/teacher ratio of 27.01, which would be plotted at the eighty-fifth percentile on the grade four Michigan table, should actually be plotted at the fifteenth percentile. Also, the correct pupil/teacher ratio for the fifteenth percentile, 27.01, should be written in, and the incorrect ratio, 21.25, should be crossed out.

SCHOOL NORMS

GRADE 4 — MICHIGAN

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS")				ACHIEVEMENT ("OUTPUTS")				
	SES	ATTITUDES AND ASPIRATIONS				BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	58.99	53.32	54.03	54.80	57.24	56.46	56.45	56.73	56.37
90	55.31	52.68	53.03	53.90	55.16	55.14	55.23	55.30	55.03
85	53.46	52.25	52.31	53.23	54.09	54.30	54.28	54.46	54.22
80	52.46	51.84	51.84	52.82	53.36	53.58	53.63	53.68	53.54
75	51.60	51.49	51.42	52.42	52.78	53.00	53.02	53.03	52.96
70	50.88	51.16	51.04	52.03	52.20	52.48	52.51	52.44	52.41
65	50.22	50.84	50.69	51.66	51.69	51.99	52.02	51.96	51.93
60	49.66	50.53	50.40	51.32	51.25	51.54	51.54	51.51	51.50
55	49.17	50.23	50.11	50.97	50.80	51.13	51.08	51.06	51.09
50	48.68	49.95	49.83	50.61	50.36	50.77	50.64	50.63	50.69
45	48.32	49.66	49.56	50.25	49.97	50.32	50.21	50.20	50.30
40	47.96	49.34	49.28	49.87	49.55	49.87	49.80	49.76	49.86
35	47.57	48.97	48.97	49.43	49.05	49.36	49.30	49.21	49.41
30	47.13	48.59	48.65	48.94	48.49	48.72	48.81	48.55	48.91
25	46.75	48.18	48.33	48.39	47.91	48.11	48.14	47.91	48.24
20	46.31	47.73	47.95	47.81	47.18	47.32	47.30	47.10	47.39
15	45.84	47.24	47.50	47.00	46.28	46.28	46.20	46.14	46.32
10	45.25	46.53	46.90	46.00	44.78	44.64	44.72	44.71	44.88
5	44.40	45.43	46.04	44.63	42.86	42.35	42.26	42.40	42.40
MEAN	49.72	49.73	49.93	50.26	50.27	50.32	50.31	50.33	50.34
STANDARD DEVIATION	4.47	2.48	2.50	3.13	4.07	4.06	4.10	4.14	3.98
NUMBER OF SCHOOLS	2433	2433	2433	2433	2492	2492	2492	2492	2492

SCHOOL NORMS

GRADE 4 — REGION 2

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS")				ACHIEVEMENT ("OUTPUTS")				
	SES	ATTITUDES AND ASPIRATIONS				BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	57.56	53.12	54.07	54.73	56.99	56.33	56.01	56.12	55.95
90	54.64	52.35	53.04	53.94	54.89	54.95	54.77	54.94	54.65
85	53.14	51.74	52.18	53.30	53.78	54.09	53.94	54.08	53.92
80	52.05	51.30	51.69	52.86	53.17	53.45	53.24	53.36	53.28
75	51.24	50.92	51.20	52.46	52.56	52.90	52.64	52.68	52.69
70	50.42	50.57	50.74	52.09	51.97	52.36	52.18	52.14	52.15
65	49.73	50.24	50.44	51.73	51.51	51.88	51.74	51.70	51.73
60	49.20	49.96	50.16	51.43	51.06	51.46	51.29	51.27	51.34
55	48.78	49.68	49.90	51.08	50.57	51.08	50.79	50.91	50.95
50	48.39	49.41	49.63	50.70	50.16	50.73	50.39	50.53	50.55
45	48.04	49.12	49.33	50.36	49.83	50.31	50.00	50.10	50.15
40	47.70	48.76	49.01	50.01	49.46	49.87	49.59	49.63	49.76
35	47.29	48.42	48.70	49.61	49.02	49.44	49.15	49.13	49.36
30	46.92	48.03	48.41	49.12	48.53	48.93	48.76	48.53	48.94
25	46.52	47.62	48.08	48.60	47.97	48.38	48.18	47.98	48.41
20	46.12	47.23	47.69	48.04	47.37	47.80	47.52	47.30	47.67
15	45.74	46.76	47.21	47.32	46.80	46.82	46.62	46.45	46.70
10	45.14	46.05	46.61	46.34	45.55	45.17	45.38	45.43	45.73
5	44.34	45.11	45.85	45.07	43.58	43.03	43.01	42.98	43.05
MEAN	49.34	49.25	49.74	50.40	50.26	50.41	50.21	50.25	50.31
STANDARD DEVIATION	4.20	2.48	2.62	3.02	3.83	3.84	3.79	3.80	3.70
NUMBER OF SCHOOLS	1192	1192	1192	1192	1213	1213	1213	1213	1213

SCHOOL NORMS

GRADE 4

III. TOWNS

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS")				ACHIEVEMENT ("OUTPUTS")				
	SES	ATTITUDES AND ASPIRATIONS				BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	54.59	52.72	53.30	55.17	56.28	56.11	56.44	56.79	56.42
90	53.12	51.65	52.32	54.12	54.74	55.17	55.29	55.57	55.02
85	52.10	51.26	51.70	53.48	53.96	54.52	54.44	54.79	54.37
80	51.50	50.92	51.20	52.99	53.39	53.64	53.82	53.97	53.76
75	50.78	50.46	50.75	52.47	52.92	53.19	53.05	53.40	53.13
70	50.33	50.09	50.39	51.98	52.40	52.74	52.63	52.72	52.61
65	49.90	49.84	50.07	51.59	51.94	52.46	52.19	52.17	52.12
60	49.46	49.57	49.77	51.25	51.57	52.15	51.74	51.86	51.75
55	49.07	49.29	49.47	50.98	51.25	51.73	51.28	51.40	51.43
50	**48.73**	**48.97**	**49.19**	**50.69**	**50.76**	**51.29**	**50.89**	**50.99**	**51.11**
45	48.44	48.63	48.94	50.26	50.36	50.92	50.55	50.65	50.81
40	48.13	48.25	48.68	49.89	50.00	50.55	50.24	50.34	50.49
35	47.78	47.96	48.38	49.56	49.67	50.18	49.90	49.98	50.16
30	47.38	47.65	48.10	49.24	49.35	49.79	49.47	49.57	49.86
25	47.02	47.31	47.85	48.78	48.95	49.33	49.04	49.10	49.44
20	46.66	46.78	47.44	48.16	48.48	48.87	48.57	48.54	48.81
15	46.13	46.27	46.97	47.60	47.89	48.19	47.90	47.90	48.14
10	45.57	45.63	46.43	46.78	47.21	47.54	47.26	47.22	47.51
5	44.47	44.56	45.79	45.07	46.28	46.41	45.94	46.33	46.35
MEAN	49.10	48.77	49.34	50.48	50.95	51.26	51.03	51.22	51.18
STANDARD DEVIATION	3.08	2.53	2.29	3.03	2.95	3.04	3.17	3.27	3.00
NUMBER OF SCHOOLS	365	365	365	365	373	373	373	373	373

SCHOOL NORMS

GRADE 4

REGION 2
III. TOWNS

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS")				ACHIEVEMENT ("OUTPUTS")				
	SES	ATTITUDES AND ASPIRATIONS				BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	53.30	52.81	53.31	55.02	54.96	55.52	55.22	55.61	54.91
90	52.80	51.64	52.28	53.91	53.86	54.28	54.20	54.63	54.07
85	51.90	51.04	51.75	53.25	53.33	53.54	53.21	53.75	53.33
80	51.33	50.53	51.08	52.93	52.72	53.19	52.74	53.22	52.85
75	50.59	50.11	50.54	52.49	52.13	52.73	52.38	52.51	52.39
70	50.15	49.82	50.20	51.98	51.78	52.43	52.03	52.09	52.02
65	49.80	49.57	49.96	51.59	51.49	52.09	51.66	51.79	51.72
60	49.37	49.34	49.71	51.26	51.17	51.70	51.26	51.26	51.46
55	49.02	49.03	49.42	50.92	50.68	51.38	50.88	50.96	51.19
50	**48.72**	**48.67**	**49.16**	**50.55**	**50.33**	**51.06**	**50.55**	**50.66**	**50.88**
45	48.47	48.32	48.93	50.15	50.05	50.72	50.25	50.38	50.55
40	48.21	48.05	48.70	49.78	49.79	50.34	49.96	50.03	50.22
35	47.88	47.80	48.43	49.47	49.52	49.98	49.60	49.64	49.94
30	47.52	47.47	48.12	49.15	49.25	49.61	49.18	49.28	49.62
25	47.11	47.09	47.74	48.77	48.63	49.21	48.89	48.86	49.24
20	46.63	46.66	47.27	48.18	48.22	48.86	48.40	48.32	48.72
15	46.12	46.29	46.79	47.64	47.71	48.22	47.91	47.87	48.20
10	45.61	45.72	46.28	46.73	47.28	47.81	47.38	47.09	47.63
5	44.81	44.78	45.70	45.29	46.53	46.88	45.95	46.14	46.42
MEAN	48.91	48.61	49.26	50.45	50.55	50.99	50.60	50.71	50.78
STANDARD DEVIATION	2.62	2.48	2.25	2.92	2.68	2.77	2.81	2.89	2.64
NUMBER OF SCHOOLS	227	227	227	227	227	227	227	227	227

SCHOOL NORMS

GRADE 7 — **MICHIGAN**

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS")				ACHIEVEMENT ("OUTPUTS")				
	SES	ATTITUDES AND ASPIRATIONS				BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	56.67	53.14	53.21	55.48	55.40	55.24	55.28	56.08	55.45
90	53.70	52.45	52.28	54.57	53.91	53.82	54.23	54.65	54.07
85	52.26	51.92	51.70	53.90	53.06	53.16	53.48	53.64	53.30
80	51.18	51.54	51.35	53.38	52.52	52.65	52.99	52.97	52.76
75	50.38	51.21	51.04	52.95	52.11	52.22	52.47	52.45	52.28
70	49.74	50.94	50.73	52.58	51.70	51.79	52.03	52.02	51.89
65	49.23	50.67	50.46	52.24	51.23	51.48	51.64	51.63	51.55
60	48.64	50.41	50.20	51.81	50.91	51.16	51.19	51.31	51.22
55	48.18	50.16	49.98	51.35	50.57	50.79	50.86	50.92	50.89
50	47.79	49.92	49.76	51.02	50.24	50.41	50.49	50.52	50.53
45	47.37	49.68	49.53	50.72	49.85	50.05	50.09	50.14	50.16
40	46.96	49.45	49.30	50.30	49.51	49.71	49.70	49.79	49.83
35	46.47	49.21	49.03	49.88	49.18	49.34	49.34	49.42	49.46
30	45.97	48.93	48.76	49.45	48.76	48.98	48.89	49.03	49.08
25	45.49	48.63	48.46	48.86	48.28	48.57	48.45	48.56	48.65
20	45.00	48.29	48.09	48.02	47.54	47.98	47.89	47.93	48.02
15	44.47	47.83	47.63	46.95	46.76	47.26	47.10	46.92	47.19
10	43.82	47.21	47.24	45.82	45.31	45.87	45.78	45.03	45.69
5	42.70	46.46	46.12	43.94	42.13	43.52	43.22	41.79	43.07
MEAN	48.42	49.90	49.74	50.62	49.88	50.13	50.20	50.22	50.20
STANDARD DEVIATION	4.29	2.11	2.16	3.52	3.69	3.37	3.54	3.90	3.49
NUMBER OF SCHOOLS	892	892	892	892	909	909	909	909	909

SCHOOL NORMS

GRADE 7 — REGION 2

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS")				ACHIEVEMENT ("OUTPUTS")				
	SES	ATTITUDES AND ASPIRATIONS				BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	55.53	52.72	52.42	55.37	54.55	54.00	53.89	55.17	54.20
90	52.56	51.76	51.52	54.59	53.01	53.21	53.02	53.57	53.22
85	50.99	51.38	51.12	54.06	52.34	52.56	52.43	52.82	52.62
80	50.34	51.04	50.81	53.60	51.92	52.07	51.98	52.41	52.04
75	49.76	50.72	50.54	53.20	51.48	51.67	51.59	52.01	51.63
70	49.21	50.43	50.29	52.90	51.09	51.43	51.21	51.61	51.32
65	48.73	50.16	50.05	52.59	50.78	51.17	50.96	51.25	51.05
60	48.30	49.90	49.82	52.26	50.50	50.86	50.70	50.88	50.79
55	47.96	49.66	49.60	51.91	50.23	50.50	50.35	50.55	50.48
50	47.62	49.44	49.40	51.57	49.94	50.17	49.98	50.25	50.18
45	47.29	49.22	49.20	51.25	49.66	49.92	49.65	49.98	49.93
40	46.90	48.98	49.00	50.94	49.42	49.66	49.40	49.70	49.66
35	46.48	48.74	48.81	50.53	49.16	49.34	49.09	49.35	49.34
30	46.11	48.50	48.58	50.05	48.82	49.06	48.71	49.03	49.05
25	45.79	48.26	48.34	49.62	48.50	48.79	48.38	48.71	48.76
20	45.33	47.96	47.99	49.11	48.13	48.35	47.99	48.28	48.30
15	44.84	47.59	47.61	48.46	47.56	47.80	47.48	47.79	47.71
10	44.23	47.07	47.26	47.14	46.83	47.26	46.76	46.99	47.04
5	43.35	46.49	46.34	45.79	45.36	46.01	45.41	45.83	45.91
MEAN	48.10	49.49	49.43	51.24	49.85	50.10	49.85	50.21	50.07
STANDARD DEVIATION	3.65	2.00	1.87	2.97	2.97	2.74	2.83	3.03	2.74
NUMBER OF SCHOOLS	406	406	406	406	412	412	412	412	412

SCHOOL NORMS

GRADE 7

III. TOWNS

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS")				ACHIEVEMENT ("OUTPUTS")				
	SES	ATTITUDES AND ASPIRATIONS				BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	52.74	52.24	52.87	54.99	54.98	54.06	54.71	55.21	54.61
90	51.84	51.53	51.49	54.24	53.67	53.44	53.82	54.09	53.72
85	51.10	51.14	50.95	53.74	52.80	53.11	53.23	53.60	53.22
80	50.66	50.84	50.55	53.31	52.40	52.85	52.92	53.11	52.88
75	50.22	50.48	50.22	53.03	51.94	52.59	52.55	52.76	52.54
70	49.61	50.16	50.06	52.78	51.51	52.34	52.18	52.48	52.21
65	49.24	49.93	49.90	52.45	51.19	51.96	51.94	52.19	51.93
60	48.98	49.71	49.74	52.08	51.01	51.64	51.70	51.85	51.66
55	48.73	49.56	49.59	51.67	50.83	51.42	51.47	51.60	51.40
50	48.43	49.41	49.44	51.33	50.67	51.16	51.23	51.40	51.17
45	48.14	49.26	49.29	51.09	50.53	50.77	50.95	51.17	50.96
40	47.89	49.10	49.06	50.87	50.39	50.46	50.62	50.86	50.76
35	47.62	48.94	48.81	50.63	50.25	50.19	50.21	50.53	50.45
30	47.32	48.78	48.58	50.35	50.03	50.01	49.95	50.18	50.13
25	46.95	48.35	48.37	49.94	49.81	49.83	49.70	49.80	49.79
20	46.47	47.98	48.11	49.43	49.55	49.54	49.44	49.50	49.52
15	45.87	47.60	47.81	49.06	49.27	49.17	49.14	49.19	49.27
10	45.44	47.06	47.40	48.76	48.77	48.87	48.71	48.58	48.93
5	44.88	46.15	46.85	47.27	47.79	48.27	48.32	47.77	48.27
MEAN	48.57	49.39	49.44	51.38	50.96	51.12	51.21	51.37	51.24
STANDARD DEVIATION	2.73	1.76	1.70	2.30	2.18	1.93	2.05	2.31	1.98
NUMBER OF SCHOOLS	121	121	121	121	123	123	123	123	123

SCHOOL NORMS

GRADE 7

REGION 2
III. TOWNS

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS")				ACHIEVEMENT ("OUTPUTS")				
	SES	ATTITUDES AND ASPIRATIONS				BASIC SKILLS			
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	51.99	51.97	52.86	54.82	53.97	53.32	53.12	53.86	53.36
90	51.04	51.36	51.40	54.04	52.99	52.94	52.82	53.14	52.94
85	50.70	51.03	51.03	53.64	52.54	52.54	52.42	52.79	52.47
80	50.40	50.73	50.73	53.18	51.95	52.10	52.13	52.52	52.03
75	50.03	50.44	50.44	52.95	51.41	51.72	51.93	52.27	51.71
70	49.53	50.18	50.20	52.71	51.11	51.57	51.72	51.92	51.54
65	49.16	50.01	50.08	52.27	50.88	51.42	51.43	51.67	51.36
60	48.98	49.83	49.95	51.82	50.70	51.27	51.18	51.50	51.20
55	48.80	49.66	49.82	51.54	50.57	51.00	51.00	51.34	51.06
50	48.54	49.50	49.69	51.29	50.45	50.72	50.82	51.14	50.92
45	48.24	49.34	49.56	51.06	50.32	50.50	50.41	50.89	50.79
40	47.89	49.16	49.42	50.84	50.17	50.27	50.11	50.62	50.59
35	47.62	48.96	49.28	50.48	49.99	50.13	49.91	50.32	50.37
30	47.39	48.77	49.06	50.04	49.82	49.99	49.71	50.06	50.04
25	47.09	48.43	48.80	49.59	49.63	49.86	49.54	49.80	49.68
20	46.65	48.07	48.52	49.20	49.43	49.67	49.36	49.55	49.48
15	46.19	47.69	48.19	48.98	49.21	49.32	49.12	49.30	49.29
10	45.66	47.14	47.64	48.76	48.86	49.01	48.76	48.64	49.04
5	45.30	46.64	47.18	47.01	48.14	48.68	48.32	48.14	48.79
MEAN	48.46	49.42	49.67	51.17	50.64	50.86	50.74	50.99	50.88
STANDARD DEVIATION	2.11	1.72	1.48	2.32	1.73	1.40	1.52	1.77	1.42
NUMBER OF SCHOOLS	71	71	71	71	71	71	71	71	71

GRADE 4

DISTRIC

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("IN								
	SES	ATTITUDES AND ASPIRATIONS			SCHOOL HUMAN RESOURCES				
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	PUPIL/TEACHER RATIO	AVERAGE YEARS TEACHING EXPERIENCE	PERCENTAGE OF TEACHERS WITH MASTERS OR ABOVE	AVERAGE TEACHER SALARY	STAT EQUAL VALUA PER PU
95	54.00	52.06	52.92	54.47	29.45	14.67	37.46	9864	27783
90	52.18	51.49	51.84	53.55	28.09	13.58	33.16	9478	21962
85	51.28	51.11	51.29	52.97	27.01	12.81	29.25	9173	19441
80	50.45	50.75	50.88	52.65	26.56	12.19	25.94	8949	17679
75	49.87	50.42	50.60	52.40	26.11	11.66	24.01	8761	16305
70	49.36	50.13	50.37	52.11	25.66	11.24	22.26	8646	15124
65	48.94	49.89	50.16	51.77	25.22	10.86	20.22	8530	14217
60	48.59	49.66	49.97	51.57	24.83	10.49	18.76	8415	13310
55	48.30	49.45	49.78	51.38	24.49	10.10	17.62	8311	12444
50	48.03	49.25	49.55	51.15	24.16	9.71	16.48	8209	11925
45	47.76	49.00	49.30	50.87	23.82	9.33	15.38	8106	11406
40	47.46	48.76	49.08	50.60	23.48	8.98	14.29	8004	10887
35	47.16	48.44	48.85	50.36	23.15	8.62	13.15	7890	10367
30	46.87	48.14	48.60	50.10	22.72	8.25	11.92	7776	9848
25	46.53	47.86	48.32	49.84	22.23	7.88	10.68	7662	9277
20	46.14	47.49	48.02	49.44	21.74	7.50	8.67	7503	8600
15	45.70	47.00	47.72	48.94	21.25	6.95	6.30	7291	7923
10	45.25	46.25	47.25	48.43	20.38	6.36	2.46	6896	7246
5	44.41	45.28	46.24	47.41	19.14	5.63	0.13	5957	6568
MEAN	48.47	48.99	49.47	51.06	24.26	10.04	17.60	8146.80	13947.
STANDARD DEVIATION	3.21	2.23	2.17	2.10	3.66	3.50	11.07	1167.30	7882.
NUMBER OF DISTRICTS	579	579	579	579	585	585	585	583	623

TRICT NORMS

MICHIGAN

("INPUTS")					ACHIEVEMENT ("OUTPUTS")				
SCHOOL FINANCIAL RESOURCES						BASIC SKILLS			
STATE QUALIZED ALUATION ER PUPIL	LOCAL REVENUE PER PUPIL	STATE SCHOOL AID PER PUPIL	K–12 INSTRUCTIONAL EXPENSE PER PUPIL	TOTAL CURRENT OPERATING EXPENSE PER PUPIL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
7783	668	402	595	795	54.99	55.24	55.78	55.69	55.21
1962	517	384	539	733	53.85	54.24	54.50	54.35	54.20
9441	450	369	508	679	53.22	53.62	53.71	53.58	53.53
7679	409	357	486	651	52.72	53.09	53.25	52.97	52.99
6305	380	346	468	629	52.24	52.57	52.70	52.50	52.57
5124	356	336	452	608	51.90	52.21	52.29	52.10	52.16
4217	334	325	438	596	51.57	51.93	51.90	51.73	51.81
3310	315	315	429	583	51.25	51.67	51.55	51.46	51.53
2444	299	306	419	571	50.90	51.44	51.21	51.20	51.27
1925	283	298	410	560	50.60	51.20	50.83	50.93	50.95
1406	269	289	400	549	50.34	50.89	50.51	50.60	50.64
0887	255	281	393	538	50.05	50.54	50.20	50.18	50.36
0367	241	274	385	528	49.75	50.17	49.92	49.83	50.07
9848	227	267	377	518	49.37	49.84	49.63	49.44	49.77
9277	212	260	370	507	48.90	49.48	49.31	48.96	49.39
8600	197	251	362	497	48.47	49.03	48.92	48.39	48.94
7923	182	237	341	482	48.01	48.46	48.45	47.82	48.40
7246	160	219	311	454	47.37	47.59	47.59	47.09	47.62
6568	133	186	260	364	46.38	46.18	45.98	46.10	46.44
3947.28	320.98	300.16	419.84	575.52	50.66	51.01	50.95	50.81	50.94
7882.42	165.03	72.20	96.53	134.03	2.73	2.68	2.79	2.97	2.66
623	623	620	623	623	585	585	585	585	585

GRADE 4

DISTRICT N

PERCENTILE DISTRIBUTION	SES	ATTITUDES AND ASPIRATIONS			SCHOOL HUMAN RESOURCES				
	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPU								
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	PUPIL/TEACHER RATIO	AVERAGE YEARS TEACHING EXPERIENCE	PERCENTAGE OF TEACHERS WITH MASTERS OR ABOVE	AVERAGE TEACHER SALARY	STATE EQUALIZE VALUATIO PER PUPI
95	53.44	51.71	53.07	54.15	29.55	13.64	34.63	9376	22419
90	51.77	51.15	51.85	53.23	28.22	12.54	28.76	9040	18983
85	50.63	50.80	51.12	52.89	27.24	11.96	26.23	8817	17279
80	50.11	50.38	50.63	52.59	26.69	11.44	24.38	8691	15817
75	49.65	50.07	50.41	52.31	26.29	11.11	22.76	8574	14845
70	49.27	49.81	50.21	51.98	25.88	10.77	20.98	8456	14009
65	48.95	49.59	50.05	51.69	25.47	10.44	19.32	8359	13174
60	48.65	49.38	49.88	51.52	25.06	10.11	18.34	8282	12411
55	48.38	49.18	49.71	51.35	24.73	9.79	17.36	8205	11949
50	48.10	48.98	49.45	51.14	24.41	9.45	16.38	8128	11487
45	47.82	48.78	49.21	50.88	24.09	9.09	15.42	8051	11025
40	47.55	48.54	49.02	50.64	23.77	8.72	14.46	7971	10563
35	47.28	48.28	48.83	50.44	23.45	8.37	13.49	7884	10101
30	47.03	48.00	48.61	50.24	23.13	8.04	12.37	7798	9639
25	46.79	47.71	48.35	49.99	22.72	7.70	11.25	7711	9092
20	46.44	47.40	48.07	49.73	22.25	7.33	9.79	7624	8507
15	46.02	46.95	47.78	49.29	21.78	6.91	7.65	7472	7922
10	45.55	46.32	47.27	48.65	21.31	6.47	5.07	7294	7337
5	44.88	45.52	46.45	47.73	20.24	5.79	0.98	6573	6752
MEAN	48.46	48.83	49.43	51.06	24.65	9.63	17.02	8086.93	12780.8
STANDARD DEVIATION	2.86	2.01	2.17	1.90	3.45	3.05	9.54	937.28	6094.2
NUMBER OF DISTRICTS	317	317	317	317	314	314	314	312	351

ISTRICT NORMS

REGION 2

NT ("INPUTS")					ACHIEVEMENT ("OUTPUTS")				
SCHOOL FINANCIAL RESOURCES						BASIC SKILLS			
STATE EQUALIZED VALUATION PER PUPIL	LOCAL REVENUE PER PUPIL	STATE SCHOOL AID PER PUPIL	K–12 INSTRUCTIONAL EXPENSE PER PUPIL	TOTAL CURRENT OPERATING EXPENSE PER PUPIL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
22419	529	395	557	724	54.18	54.32	54.15	54.25	54.14
18983	442	378	504	650	53.25	53.60	53.49	53.35	53.26
17279	393	366	477	624	52.52	52.87	52.81	52.72	52.72
15817	363	355	459	604	52.09	52.42	52.36	52.23	52.23
14845	343	344	440	591	51.79	52.09	51.99	51.76	51.85
14009	323	335	431	579	51.49	51.81	51.64	51.54	51.60
13174	306	326	422	567	51.16	51.60	51.26	51.32	51.40
12411	290	317	413	557	50.78	51.40	50.95	51.10	51.17
11949	274	308	405	547	50.56	51.18	50.68	50.88	50.90
11487	261	299	397	537	50.36	50.89	50.46	50.59	50.63
11025	249	290	391	528	50.10	50.59	50.24	50.20	50.37
10563	237	283	385	520	49.78	50.30	49.98	49.91	50.12
10101	225	276	379	512	49.48	49.98	49.70	49.59	49.88
9639	212	270	373	504	49.16	49.66	49.40	49.24	49.56
9092	200	264	367	496	48.74	49.35	49.09	48.69	49.15
8507	187	258	360	483	48.40	48.92	48.78	48.24	48.79
7922	175	245	335	459	47.98	48.45	48.36	47.80	48.28
7337	153	228	300	405	47.44	47.79	47.49	47.08	47.66
6752	131	199	251	321	46.64	46.58	46.35	46.10	46.82
12780.85	286.21	300.39	402.62	538.14	50.35	50.71	50.44	50.32	50.51
6094.26	121.43	62.21	81.90	106.39	2.35	2.31	2.38	2.52	2.27
351	351	350	351	351	319	319	319	319	319

GRADE 4

DISTRICT N

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPU								
	SES	ATTITUDES AND ASPIRATIONS			SCHOOL HUMAN RESOURCES				
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	PUPIL/TEACHER RATIO	AVERAGE YEARS TEACHING EXPERIENCE	PERCENTAGE OF TEACHERS WITH MASTERS OR ABOVE	AVERAGE TEACHER SALARY	STATE EQUALIZED VALUATION PER PUPIL
95	53.15	51.13	51.83	53.95	29.92	14.25	37.31	9500	21350
90	52.07	50.63	50.88	53.01	28.62	13.67	33.86	9154	18412
85	51.53	50.21	50.60	52.43	27.81	13.08	31.61	8992	17485
80	50.45	49.89	50.38	51.93	27.00	12.50	27.64	8831	16559
75	49.85	49.69	50.18	51.66	26.70	12.10	25.45	8743	15632
70	49.54	49.58	50.01	51.51	26.40	11.69	24.40	8673	14825
65	49.28	49.47	49.84	51.36	26.10	11.34	23.35	8603	14038
60	49.06	49.36	49.67	51.16	25.80	11.03	22.23	8533	13250
55	48.84	49.25	49.51	50.87	25.50	10.72	20.80	8463	12483
50	48.63	49.07	49.34	50.64	25.20	10.42	19.40	8391	12133
45	48.43	48.89	49.19	50.46	24.88	10.13	18.35	8300	11783
40	48.23	48.69	49.06	50.27	24.52	9.83	17.30	8209	11433
35	48.00	48.45	48.92	50.06	24.16	9.54	16.35	8117	11083
30	47.76	48.22	48.78	49.84	23.79	9.24	15.72	8026	10733
25	47.44	48.00	48.50	49.50	23.43	8.93	15.09	7937	10383
20	47.15	47.78	48.20	49.11	23.07	8.62	14.46	7850	10033
15	46.91	47.31	47.98	48.79	22.50	8.04	13.83	7762	9683
10	46.59	46.79	47.77	48.10	21.88	7.29	12.75	7675	8875
5	45.95	45.80	47.35	47.43	21.26	6.54	11.18	7525	7562
MEAN	48.98	48.81	49.34	50.66	25.18	10.46	21.34	8376.86	13245.3
STANDARD DEVIATION	2.23	1.61	1.28	1.82	2.50	2.37	8.24	729.27	4317.5
NUMBER OF DISTRICTS	104	104	104	104	105	105	105	105	105

STRICT NORMS

III. TOWNS

T ("INPUTS")					ACHIEVEMENT ("OUTPUTS")				
SCHOOL FINANCIAL RESOURCES						BASIC SKILLS			
STATE EQUALIZED VALUATION PER PUPIL	LOCAL REVENUE PER PUPIL	STATE SCHOOL AID PER PUPIL	K–12 INSTRUCTIONAL EXPENSE PER PUPIL	TOTAL CURRENT OPERATING EXPENSE PER PUPIL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
21350	423	371	510	687	54.44	55.38	55.38	56.38	55.44
18412	391	355	487	645	53.80	54.56	54.61	55.12	54.80
17485	368	342	472	625	53.51	53.91	54.32	54.28	53.94
16559	354	333	460	608	53.25	53.46	53.50	53.50	53.38
15632	340	323	448	598	52.81	53.02	53.01	53.05	52.98
14825	326	315	438	588	52.38	52.63	52.72	52.71	52.60
14038	315	309	433	578	52.04	52.36	52.39	52.34	52.19
13250	304	304	428	569	51.75	52.16	52.00	51.92	52.00
12483	293	299	422	561	51.53	52.01	51.66	51.61	51.81
12133	282	294	417	554	51.31	51.85	51.46	51.40	51.62
11783	272	289	412	547	51.06	51.68	51.26	51.15	51.41
11433	263	284	406	540	50.80	51.46	50.94	50.86	51.18
11083	254	279	401	532	50.60	51.23	50.63	50.34	50.80
10733	245	273	394	525	50.41	50.79	50.33	50.00	50.47
10383	236	268	388	517	50.16	50.35	50.04	49.68	50.15
10033	227	262	381	510	49.50	49.75	49.75	49.13	49.86
9683	211	257	375	502	48.67	49.38	49.21	48.52	49.21
8875	193	244	368	495	48.34	48.90	48.50	48.00	48.44
7562	176	229	362	480	47.88	47.79	47.46	47.13	47.53
13245.34	293.74	298.63	421.06	564.94	51.30	51.69	51.50	51.48	51.57
4317.55	80.17	44.74	43.25	58.98	2.12	2.19	2.32	2.66	2.26
105	105	105	105	105	105	105	105	105	105

DISTRICT NOR

GRADE 7

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS"									
	SES	ATTITUDES AND ASPIRATIONS			SCHOOL HUMAN RESOURCES					
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	PUPIL/TEACHER RATIO	AVERAGE YEARS TEACHING EXPERIENCE	PERCENTAGE OF TEACHERS WITH MASTERS OR ABOVE	AVERAGE TEACHER SALARY	STATE EQUALIZED VALUATION PER PUPIL	P
95	54.74	52.62	52.71	55.87	29.06	14.34	37.66	9877	26967	
90	52.24	51.69	51.81	54.89	27.99	13.35	33.43	9496	21604	
85	51.15	51.29	51.30	54.35	26.98	12.62	29.56	9193	19031	
80	50.31	50.95	50.91	53.88	26.54	12.06	26.32	8975	17452	
75	49.58	50.65	50.60	53.48	26.11	11.54	24.26	8778	16127	
70	49.04	50.39	50.35	53.14	25.67	11.16	22.59	8666	15037	
65	48.53	50.14	50.12	52.83	25.23	10.80	20.63	8554	14157	
60	48.11	49.91	49.89	52.55	24.85	10.43	19.02	8442	13278	
55	47.78	49.69	49.68	52.28	24.51	10.05	17.92	8337	12440	
50	47.44	49.49	49.48	51.93	24.18	9.67	16.81	8237	11918	
45	47.08	49.28	49.28	51.57	23.85	9.31	15.74	8137	11395	
40	46.69	49.06	49.02	51.22	23.52	8.96	14.67	8037	10873	
35	46.22	48.83	48.74	50.87	23.18	8.61	13.61	7928	10351	
30	45.87	48.56	48.50	50.49	22.78	8.25	12.42	7815	9828	
25	45.43	48.25	48.26	50.09	22.29	7.88	11.22	7702	9252	
20	44.99	47.87	47.80	49.66	21.80	7.52	9.67	7580	8584	
15	44.52	47.46	47.40	49.25	21.31	6.99	7.59	7374	7917	
10	43.90	46.94	46.81	48.19	20.54	6.44	5.03	7112	7249	
5	42.86	46.15	45.75	46.70	19.25	5.69	0.74	6189	6581	
MEAN	47.87	49.42	49.40	51.71	24.24	9.89	18.12	8198.29	13730.32	
STANDARD DEVIATION	3.67	2.05	2.13	2.74	3.12	2.97	10.81	1138.05	7290.96	
NUMBER OF DISTRICTS	561	561	561	561	568	568	568	566	592	

STRICT NORMS

MICHIGAN

T ("INPUTS")					ACHIEVEMENT ("OUTPUTS")				
SCHOOL FINANCIAL RESOURCES						BASIC SKILLS			
STATE EQUALIZED VALUATION PER PUPIL	LOCAL REVENUE PER PUPIL	STATE SCHOOL AID PER PUPIL	K–12 INSTRUCTIONAL EXPENSE PER PUPIL	TOTAL CURRENT OPERATING EXPENSE PER PUPIL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
26967	634	402	596	787	54.87	54.79	55.04	55.88	55.05
21604	504	384	541	730	53.52	53.72	54.00	54.42	53.94
19031	442	370	510	678	52.81	53.10	53.38	53.68	53.25
17452	406	358	489	651	52.32	52.53	52.90	53.10	52.73
16127	378	347	471	630	51.95	52.12	52.29	52.62	52.20
15037	355	337	456	610	51.57	51.74	51.95	52.15	51.88
14157	332	327	441	598	51.16	51.50	51.61	51.75	51.57
13278	314	317	432	586	50.85	51.26	51.22	51.47	51.27
12440	299	308	423	574	50.55	50.92	50.94	51.18	50.99
11918	284	299	414	563	50.27	50.59	50.64	50.87	50.72
11395	269	291	405	553	50.00	50.28	50.31	50.50	50.42
10873	255	282	396	542	49.73	49.98	49.95	50.12	50.12
10351	242	276	389	532	49.47	49.69	49.63	49.79	49.81
9828	228	269	382	522	49.19	49.42	49.35	49.52	49.53
9252	213	262	374	512	48.89	49.15	49.01	49.25	49.24
8584	197	255	367	503	48.51	48.86	48.63	48.90	48.92
7917	182	240	357	493	47.97	48.52	48.26	48.44	48.51
7249	159	225	332	469	47.24	47.91	47.49	47.85	47.89
6581	132	1[illegible]	286	415	46.21	46.58	46.52	46.57	46.83
13730.32	315.58	302.42	425.31	578.98	50.39	50.68	50.69	50.97	50.79
4290.96	148.85	67.37	88.91	113.23	2.62	2.49	2.67	2.88	2.55
592	592	592	592	592	566	566	566	566	566

GRADE 7

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS"									
	SES	ATTITUDES AND ASPIRATIONS			SCHOOL HUMAN RESOURCES					
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	PUPIL/TEACHER RATIO	AVERAGE YEARS TEACHING EXPERIENCE	PERCENTAGE OF TEACHERS WITH MASTERS OR ABOVE	AVERAGE TEACHER SALARY	STATE EQUALIZED VALUATION PER PUPIL	F
95	53.65	52.03	52.21	55.58	29.27	13.27	34.76	9388	22400	
90	51.40	51.49	51.43	54.80	28.14	12.36	29.01	9049	18837	
85	50.43	51.10	51.02	54.31	27.17	11.81	26.37	8830	17231	
80	49.81	50.72	50.67	53.91	26.67	11.36	24.51	8700	15809	
75	49.22	50.48	50.42	53.51	26.27	11.03	22.91	8585	14871	
70	48.84	50.22	50.17	53.16	25.87	10.70	21.18	8469	14068	
65	48.36	49.94	49.94	52.89	25.47	10.38	19.45	8370	13265	
60	48.01	49.68	49.72	52.61	25.07	10.06	18.49	8294	12477	
55	47.71	49.49	49.55	52.32	24.74	9.74	17.52	8219	12003	
50	47.44	49.30	49.37	52.02	24.42	9.41	16.56	8143	11529	
45	47.13	49.10	49.18	51.72	24.11	9.05	15.62	8068	11054	
40	46.73	48.89	48.96	51.43	23.79	8.69	14.68	7991	10580	
35	46.32	48.66	48.75	51.11	23.47	8.35	13.73	7906	10106	
30	46.05	48.41	48.53	50.76	23.15	8.02	12.67	7821	9631	
25	45.08	48.14	48.32	50.18	22.76	7.69	11.57	7736	9076	
20	45.36	47.85	47.98	49.79	22.29	7.33	10.45	7651	8491	
15	44.94	47.44	47.60	49.34	21.82	6.91	8.35	7530	7905	
10	44.48	46.99	47.27	48.53	21.36	6.49	5.97	7355	7319	
5	43.77	46.34	46.29	46.94	20.45	5.82	2.30	7030	6733	
MEAN	47.80	49.30	49.36	51.79	24.57	9.44	17.35	8126.31	12720.30	
STANDARD DEVIATION	3.21	2.00	1.88	2.56	2.86	2.41	9.33	898.25	5746.71	
NUMBER OF DISTRICTS	308	308	308	308	308	308	308	306	332	

STRICT NORMS

REGION 2

T ("INPUTS")					ACHIEVEMENT ("OUTPUTS")				
SCHOOL FINANCIAL RESOURCES						BASIC SKILLS			
STATE EQUALIZED VALUATION PER PUPIL	LOCAL REVENUE PER PUPIL	STATE SCHOOL AID PER PUPIL	K–12 INSTRUCTIONAL EXPENSE PER PUPIL	TOTAL CURRENT OPERATING EXPENSE PER PUPIL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
22400	529	396	562	732	53.70	53.79	53.59	54.60	53.80
18837	441	380	507	655	52.75	52.96	52.89	53.50	53.11
17231	393	368	480	628	52.16	52.36	52.27	52.84	52.36
15809	364	357	463	607	51.64	51.90	51.88	52.34	51.88
14871	343	347	445	595	51.24	51.60	51.49	51.80	51.52
14068	323	338	434	583	50.92	51.37	51.16	51.48	51.21
13265	307	329	426	571	50.62	51.11	50.94	51.18	50.99
12477	292	320	417	561	50.35	50.81	50.71	50.87	50.76
12003	276	311	409	552	50.11	50.47	50.37	50.56	50.50
11529	263	302	400	543	49.89	50.16	50.01	50.25	50.23
11054	251	293	394	534	49.67	49.91	49.69	50.00	49.96
10580	238	284	388	525	49.46	49.68	49.48	49.75	49.69
10106	226	278	382	518	49.24	49.45	49.27	49.52	49.44
9631	213	272	376	510	48.97	49.22	48.95	49.29	49.19
9076	200	266	371	502	48.70	48.98	48.63	48.99	48.95
8491	188	260	365	494	48.39	48.73	48.34	48.63	48.70
7905	175	254	355	479	47.98	48.38	47.90	48.18	48.29
7319	152	234	330	455	47.42	47.71	47.29	47.69	47.69
6733	130	207	282	368	46.33	46.70	46.30	46.70	46.78
12720.30	286.34	304.29	409.90	548.83	50.00	50.28	50.04	50.43	50.27
5746.71	119.28	58.72	76.41	97.30	2.25	2.17	2.28	2.46	2.17
332	332	332	332	332	310	310	310	310	310

DISTRICT NORM

GRADE 7

PERCENTILE DISTRIBUTION	VARIABLES ASSUMED TO INFLUENCE ACHIEVEMENT ("INPUTS"									
	SES	ATTITUDES AND ASPIRATIONS			SCHOOL HUMAN RESOURCES					
	SOCIO ECONOMIC STATUS	A IMPORTANCE OF SCHOOL ACHIEVEMENT	B SELF PERCEPTION	C ATTITUDE TOWARD SCHOOL	PUPIL/TEACHER RATIO	AVERAGE YEARS TEACHING EXPERIENCE	PERCENTAGE OF TEACHERS WITH MASTERS OR ABOVE	AVERAGE TEACHER SALARY	STATE EQUALIZED VALUATION PER PUPIL	R PE
95	52.70	51.74	52.20	54.57	29.92	14.25	37.31	9500	21350	
90	51.82	51.36	51.07	54.07	28.62	13.67	33.86	9154	18412	
85	51.19	50.99	50.61	53.49	27.81	13.08	31.61	8992	17485	
80	50.68	50.65	50.32	53.12	27.00	12.50	27.64	8831	16559	
75	50.25	50.36	50.14	52.89	26.70	12.10	25.45	8743	15632	
70	49.52	50.13	49.99	52.61	26.40	11.69	24.40	8673	14825	
65	49.19	49.93	49.85	52.29	26.10	11.34	23.35	8603	14038	
60	48.98	49.73	49.70	51.92	25.80	11.03	22.23	8533	13250	
55	48.76	49.57	49.54	51.59	25.50	10.72	20.80	8463	12483	
50	48.47	49.41	49.38	51.31	25.20	10.42	19.40	8391	12133	
45	48.20	49.24	49.20	51.07	24.88	10.13	18.35	8300	11783	
40	47.96	49.09	48.98	50.86	24.52	9.83	17.30	8209	11433	
35	47.72	48.94	48.77	50.62	24.16	9.54	16.35	8117	11083	
30	47.49	48.79	48.58	50.36	23.79	9.24	15.72	8026	10733	
25	47.25	48.35	48.39	50.00	23.43	8.93	15.09	7937	10383	
20	46.88	47.99	48.18	49.59	23.07	8.62	14.46	7850	10033	
15	46.41	47.63	47.89	49.23	22.50	8.04	13.83	7762	9683	
10	45.80	47.18	47.43	48.94	21.88	7.29	12.75	7675	8875	
5	45.27	46.30	46.87	47.85	21.26	6.54	11.18	7525	7562	
MEAN	48.74	49.32	49.33	51.31	25.18	10.46	21.34	8376.86	13245.34	
STANDARD DEVIATION	2.42	1.63	1.50	2.13	2.50	2.37	8.24	729.27	4317.55	
NUMBER OF DISTRICTS	104	104	104	104	105	105	105	105	105	

ISTRICT NORMS

III. TOWN

NT ("INPUTS")					ACHIEVEMENT ("OUTPUTS")				
SCHOOL FINANCIAL RESOURCES						BASIC SKILLS			
STATE EQUALIZED VALUATION PER PUPIL	LOCAL REVENUE PER PUPIL	STATE SCHOOL AID PER PUPIL	K–12 INSTRUCTIONAL EXPENSE PER PUPIL	TOTAL CURRENT OPERATING EXPENSE PER PUPIL	VOCABULARY	READING	ENGLISH EXPRESSION	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
21350	423	371	510	687	54.71	53.73	54.22	54.69	54.44
18412	391	355	487	645	53.13	53.36	53.71	54.00	53.63
17485	368	342	472	625	52.70	53.06	53.27	53.46	53.20
16559	354	333	460	608	52.32	52.80	52.97	53.07	52.82
15632	340	323	448	598	51.95	52.56	52.59	52.83	52.48
14825	326	315	438	588	51.59	52.32	52.15	52.53	52.19
14038	315	309	433	578	51.27	51.98	51.95	52.20	51.97
13250	304	304	428	569	51.07	51.66	51.75	51.82	51.75
12483	293	299	422	561	50.88	51.42	51.53	51.61	51.51
12133	282	294	417	554	50.71	51.14	51.31	51.43	51.27
11783	272	289	412	547	50.56	50.77	51.02	51.26	51.05
11433	263	284	406	540	50.42	50.54	50.69	51.02	50.83
11083	254	279	401	532	50.27	50.32	50.36	50.78	50.60
10733	245	273	394	525	50.09	50.13	50.07	50.30	50.36
10383	236	268	388	517	49.90	49.94	49.81	49.85	50.08
10033	227	262	381	510	49.70	49.75	49.60	49.58	49.75
9683	211	257	375	502	49.44	49.46	49.39	49.36	49.46
8875	193	244	368	495	49.10	49.14	49.06	48.83	49.14
7562	176	229	362	480	48.31	48.77	48.48	48.06	48.77
13245.34	293.74	298.63	421.06	564.94	50.98	51.21	51.26	51.41	51.30
4317.55	80.17	44.74	43.25	58.98	1.76	1.68	1.89	2.13	1.80
105	105	105	105	105	105	105	105	105	105